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Chronic Knee Joint Disease.

Peri-articular abscess—Treatment of latter according to the late Mr. Callender, viz., by hyperdistention of the sac—Probable rupture of the pyogenic membrane—Rapid and almost fatal toxical effect from the absorption of carbolic acid—Prompt and permanent restoration from extreme collapse by the hypodermic use of the sulphate of atropine, after other powerful measures had failed; occurring in the practice of Prof. Lewis A. Sayre.

Reported with comments, by F. Gundrum, M. D.

HISTORY.—Francis G. F., æt. 22, native. Mr. F. is of medium size, and of a mento-nervous temperament. He can boast of an ancestry quite free from any constitutional dyscrasia. His father was a very strong, healthy man, who never was sick until he went into the army during our late unpleasantness, where he died from some acute disease. The mother, except having suffered from inflammatory rheumatism several times, has always enjoyed excellent health. At the age of 10, the patient, while skating during the month of March, broke through the ice, got wet all over and very cold before he had a chance to exchange his wet clothing for dry ones. But the exposure was not followed by any immediate ill consequences. On the following May, however, he was attacked by inflammatory rheumatism, which confined him to his bed for six months in succession. During this attack all the joints of the extremities were involved in acute inflammation. He was helpless for many months, became extremely emaciated, but finally recovered without any permanent damage to any of the joints involved, or to his heart.

In the latter part of 1873, while living at New Orleans, and while enjoying excellent health, he was taking daily violent exercise in a gymnasium, which brought on repeated and profuse attacks of hemoptysis, which reduced him greatly in flesh and strength. But before he became much reduced in strength he remembers distinctly, while hunting one day, that he caught the toes of his left foot under a root and gave his knee a severe twist. This was attended with a severe, sharp pain in the back part of the joint. It lost its acute character, and in the course of a few hours it subsided and no more was thought about it. Three days following, while the patient was in the act of kneeling down, he experienced a sharp cutting pain in the same knee joint. From this time on he always felt pain in it when he put any strain upon it. In the course of two or three months the pain increased, when even ordinary walking became somewhat painful, which made him limp. His general health becoming much reduced from his frequent pulmonary hæmorrhagic attacks, his physician advised the mother to take him to Italy. He sailed in the early part of 1874.

While crossing the ocean, he for the first time noticed that the knee joint was slightly swollen. The pain increased from week to week, and he was compelled to favor the limb more and more until walking was quite painful and attended with quite an "ungraceful hitch." He spent the remaining part of the winter of 1874 in Cannes, where his general health improved very much, while his knee remained in about the same condition.

He was doing well at St. R.; his general health and also his knee improving nicely, when he took a severe cold, which was followed by a subacute synovitis of the diseased joint, which lasted him for two months. During the winter of '76, he took the chalybeate waters of St. Moritz. He improved very rapidly while here; his general health became quite good and his knee got along finely. His knee, as well as the whole leg and thigh, was taken through a process of daily manipulations, or *massage*.

During the months of September and October, '76, he was at Berlin, Prague and Baden Baden. He thought his knee was almost or quite well. He went on the chase on several occasions, and walked as much as any of his comrades. While in Germany the weather became very damp and chilly, and after a sojourn of three or four weeks both his general health and his knee began to suffer again. He returned to St. R., spent the winter and spring there, where he improved rapidly again.

In the spring of '78 he went to Paris, where he remained for three or four weeks. From there he went to London. As soon as he struck Paris, he took very little care of his knee—went everywhere, using his limbs instead of a carriage, climbed stairs, and abused his knee wherever he could. It began to pain him again, and swelling again took place; this continued gradually increasing. He sailed for the United States the latter part of 1878. During his stay in Europe the patient consulted quite a number of eminent medical men, all of whom were agreed on one thing, viz., that the chronic disease of the knee joint was of a scrofulous character, and that nothing could be done for it except through the constitution. Inasmuch as this local diseased action depended on a scrofulous dyscrasia or diathesis, it could only be reached by removing the diathesis; consequently it was of little consequence what was done for the joint.

Some advised manipulations (*massage*), others iodine ointment; others this and others that; and they all advised that the patient must have out-door exercise and use his leg as much as possible. He returned to the United States in the latter part of November, 1878; his knee joint was very much swollen, flexed at nearly a right angle, and the leg rotated outwards. He suffered pain constantly, and had reflex spasms during the night, causing great loss of sleep. On December 2d, the patient consulted Dr. Frank H. Hamilton. Dr. Hamilton considered the disease of the joint due to scrofula, and advised out-door exercise, besides the usual anti-scrofulous remedies. This advice was followed as long as it was possible, but the knee became more swollen and painful—flexion and external rotation increased—the joint became so sensitive that the least jar of the body or bed when the leg was not firmly grasped, caused excruciating pain and spasm. Through the advice of Prof. A. A. Smith, Prof. L. A. Sayre was sent for January 3d, 1879. Accompanied by the late Mr. Callender, who was then the guest of Prof. Sayre, he visited the patient on the same day. They found him much emaciated, with an expression of face which indicated but too plainly the agonizing pain he was enduring. The patient was sitting in bed, grasping firmly, with both hands, the leg just below the head of the tibia, to prevent any motion of the articular surfaces. The leg was flexed at a right angle or more, the tibia subluxated and rotated outward. The least jar of the leg caused acute pain accompanied by spasm. Frequent and violent reflex spasms during the night broke the patient of his rest.

Prof. Sayre applied the double extension, viz.: one from the whole length of the leg by means of a weight and pulley secured to the leg by strips of adhesive plaster and a roller. This pulls in a horizontal direction, and the other is made from the posterior and upper portion of the tibia, the line of extension being upward and forward. This gave the patient instantaneous relief. Under the extension very marked improvement followed in the course of two or three weeks. The swelling almost entirely subsided; pain had remained absent from time the extension was applied; the limb was nearly straight and the external rotation was much less. Prof. Sayre now ordered one of his knee splints, which was applied by his son, Dr. C. H. H. Sayre (Prof. Sayre was sick at the time and unable to do it himself), in order that the patient might get out of the house and thus get the advantage of out-door exercise. In five or six days the splint caused so much pain that it had to be removed, when it was found that some of the bandages were inaccurately and too tightly applied, and had consequently done much mischief. The knee was swollen, red and shiny, measuring 2⅞ inches more in circumference than the opposite. It was treated by absolute rest and cold compresses, to which in five or six days was added iodine ointment. After ten to twelve days the effusion into the joint disappearing rather slowly, small fly blisters were ordered. These were used with good effect, so that in March the diseased joint was but little larger than the healthy one, and heat and pain had entirely subsided. He left his bed early in April, having occupied it just one hundred days. The knee improved rapidly, so that in latter part of April and during the month of May the patient considered it nearly if not quite well. Although it was weak he could walk on it without any pain and without limping. In the latter part of June, 1879, while walking over a wet floor in a Boston depot, he slipped, fell and sprained his knee again. He felt the pain most acutely along the tendon and lower portion of the biceps femoris muscle, extending up the thigh five or six inches. The swelling became diffused, red and shiny. In from ten to fifteen days a circumscribed swelling formed on the outer side of thigh, nine or ten inches above external condyle. It became boggy and fluctuated under pressure. Everything indicating the presence of pus, an aspirating needle was introduced and between three and four ounces of pus withdrawn. The abscess refilled, and it was then laid open by a free incision, the contents evacuated, which consisted of thick, not very healthy pus; the pus cavity filled with balsam of Peru and packed with oakum. This dressing was renewed when necessary, and the ulcer healed rapidly. At the end of five or six weeks, no more discharge taking place, it was expected it would soon permanently close, and no further attention was paid to it. But in a short time a slight swelling took place in the seat of the old abscess, which continued to enlarge until it was about half as large as the first one, when it discharged spontaneously through a small opening in the cicatrix of the incision. This was repeated at intervals—to fill up with pus—holding an ounce or two and then discharging again up to the time of the "Callenderism."

In the early part of January, 1880, there was noticed on the outer and anterior aspect of thigh immediately above knee joint, signs of inflammatory trouble. The parts became swollen, slightly livid, and fluctuation could be detected. It was, however, evident that the pus was rather deep, probably under the facia lata. It was concluded to let the pus come nearer the surface before giving it vent, for which purpose flax seed poultices were ordered. They were kept on for ten or twelve days, and instead of the pus approaching, it seemed to recede. The swelling became less prominent, and fluctuation more obscure. The poultices were continued. About the 17th of the month, Prof. L. A. Sayre saw the patient again, when he found the evidences of a diffuse collection of pus above the knee joint more marked, and decided to open it in the course of a few days. So on January 20th, about 3 P. M., Prof. Sayre, accompanied by his son Dr. C. H. H. Sayre and myself, repaired to the patient's house, 55 West Forty-Sixth street, for that purpose. Prof. Sayre having obtained many excellent results in the treatment of abscesses by Mr. Callender's method, as well as having had his attention drawn to similar happy results by the same method in the practice of other eminent surgeons of this city, he decided to Callenderize this patient's abscesses. This consists of opening the abscess with a sharp bistoury. The opening should not be too large, else it cannot be made to hug the nozzle of the syringe tightly, and the carbolic water would run out at the side, before the sac became hyper-distended. The abscess is now evacuated of its contents as completely as possible. A soft rubber nozzle made for the purpose, attached

to a Davidson syringe is introduced into the opening, and crowded in until it fits the opening firmly. A solution of carbolic acid, 1–40 is now pumped in until the sac which contained the pus is hyperdistended; the nozzle is withdrawn and the injection allowed to return. *This is to be repeated until the carbolic water is returned clear.* A drainage tube is now introduced into the abscess, and retained there by some means or other, according to the taste of the operator; a bandage is snugly applied, and no more is done to the abscess except to pull the drainage tube out when the production of pus has ceased. As above stated, Prof. Sayre, as well as other prominent surgeons of this city have had some excellent results from this method, but that it is not without its dangers, will, I hope, be amply proved to the satisfaction of any one before we get through with the history of this case.

On careful inspection of the abscess which is spoken of above, as being situated nine or ten inches above the knee joint, and discharging pus occasionally, a small fistulous opening was found, leading into an abscess. Some pus was squeezed out of it, and an effort was made to see if the collection around the joint could not be crowded up and evacuated through this opening. But this proved futile. The fistulous opening was now enlarged sufficiently to receive the nozzle of a Davidson syringe to see if we could force fluid into lower abscess. In this we were unsuccessful, but the syringe sucking up air once or twice, it could be distinctly felt entering the lower abscess, although no fluid could be made to pass. The upper abscess was now Callenderized four or five times. The liquid was driven in with considerable force by Dr. C. H. H. Sayre, which gave patient excruciating pain. Quite a quantity of blood returned each time with the carbolic water, so that we failed to attain the end, viz., to have the carbolic water return perfectly clear. The patient was very cheerful, sat up in bed, said he wished to help us all he could about the operation, etc., etc., until the second or third time that the sac was hyperdistended. His sufferings were more severe—he begged to be let alone—interfered some with the proceedings.

Prof. Sayre gave him a scolding and pushed him back on the pillow. He grew very pale, but kept trying to get up, and once or twice succeeded, got his fingers into the basin which caught the returning blood and carbolic water from the upper abscess.

Prof. Sayre now proceeded to open lower abscess. He made a careful incision through the skin and subcutaneous tissue, about one to one and a half inch above and to the outside of the patella, but finding no pus he desisted, went about half to an inch higher, where he succeeded, after cutting through the deep fascia of the thigh in finding plenty of thick, flocculent pus, besides some pieces of dead connective tissue. After the contents were thoroughly evacuated the sac was Callenderized five or six times. During the opening and Callenderization of the lower abscess, the patient acted as one beside himself, and was exceeding pale. He had two or three slight "fainting spells," and his pulse became exceedingly feeble. There was a considerable loss of venous blood from the last incision, and as it showed no tendency to stop, and the patient's condition became rather alarming, matters were hurried up. The drainage tubes were inserted, and a roller applied the whole length of the leg and thigh. The bed linen having become soiled and wet from blood and carbolic water, it was removed and replaced by fresh, and the patient placed comfortably in bed. He being cold and pale, an extra blanket was ordered for him. We expected he would soon rally, as his condition was attributed to a psychical effect from beholding the operation, possibly some to the pain he suffered, and to the loss of blood, which did not exceed, however, two or three ounces. But instead of rallying his condition grew worse. We had retired to the bath room to give ourselves a cleaning up, and Prof. Sayre returned after an absence of about ten minutes. He found him delirious, exceedingly pale, extremities cold up to knees and elbows, and the pulse extremely feeble. Another extra blanket was ordered; bottles filled with hot water were placed to his feet, and he was ordered to have some brandy, but there being none of the latter in the house, a dose of gin was given in its stead. Prof. Sayre asked the mother to send for some brandy, and give him half an ounce every hour until he showed signs reviving. This was done. The brandy was obtained and administered, but made patient vomit. Prof. Sayre left to attend to some other calls and returned again about 6:30 P. M. He found the patient vomiting, and in an extreme state of collapse. He was entirely unconscious, and the pulse could scarcely be distinguished at the wrist. Prof. Sayre recognized the extremely dangerous situation of the patient, and thought it very doubtful if he could be made to rally. He was at a loss to account in any way for the patient's condition, and could only attribute it to shock, which, however, did not satisfy him, as he had never, during his vast experience seen so profound an impression produced by so trivial an operation attended with so little loss of blood. The vomiting was attributed by the mother to the liquor, as it made him vomit even when in good health. Prof. Sayre ordered what he thought would best meet the present indications, and promised to return or send some one in an hour. Prof. Sayre sent Dr. C. H. H. Sayre and myself to visit the patient, and we arrived at the house a little after 7:30 P. M. The patient was very pallid, restless and delirious—extremities cold up to middle of arms and thighs—breathing about fourteen and very shallow—pupils contracted; the pulse 112, and scarcely perceptible at the wrist, so much so that it could not be counted with accuracy.

I advised the subcutaneous injection of ether and tinct. opii, and they were immediately sent for; in the meantime, more bottles filled with hot water were applied to the patient. The ether and tinct. opii having arrived, eight minims of the latter and twenty-two of the former were injected into the muscular tissue of the thigh about its middle, and on outer side. In ten minutes the patient was much quieter; but little effect was produced on the heart's action. The pulse grew a little more distinct about twenty minutes after the injection, but was soon as feeble as ever. In thirty-five minutes after the first, a half drachm of ether was injected. This had a better effect than the first, raising the pulse a trifle more. But at the end of fifty minutes, its effects had died away, and the patient was very

restless again. Brandy was tried again; mustard was freely applied to the epigastric and cardiac regions. The brandy caused him to vomit again. Another hypodermic injection of six minims of laudanum and twenty-four of ether was given, which had about as much effect as the second one. The patient improving none, but on the contrary looking more and more like he was going to die, the mother asked to have Professor A. A. Smith sent for. A carriage was immediately sent sent for him, and he arrived about 11:15 P. M. I should probably state before going any further, that besides the ether and laudanum injections, the patient took small quantities of nourishment, and an ounce or two of a strong decoction of coffee, all of which, however he failed to retain for any length of time.

Dr. Smith having arrived he was told the foregoing details. He, as well as the rest of us, failed to account for the condition of the patient after so slight an operation. In talking over the case I suggested that the carbolic acid might have something to do with the condition of the patient, but it was not taken into consideration and I said no more about it.

Dr. Smith wished to try nitrite of amyl by inhalation, and it was immediately obtained. A pearl containing five minims was placed in pledget of cotton, and this into a handkerchief and broken, and the patient allowed to inhale it. The odor at first seemed to be very disagreeable to him by his actions, but he soon inhaled it quite freely. The circulation soon became more vigorous, especially about the head. The radial pulse became quite distinct, and the anterior temporals throbbed quite vigorously. The effect on the circulation was greater than any of the ether injections. The patient for a short time appeared to recover partial consciousness. We were all struck with the remarkable effect, and hoped it would prove permanent, but after about thirty minutes the effects began to subside. The collapse became greater than ever before. A profuse perspiration broke out all over the body, as cold and clammy as I ever saw. The forehead, face and extremities were as cold as they could well get in the temperature by which they were surrounded. The trunk was very cool. The patient lay with his eyes closed, breathing very slowly and superficially. The pulse was perceptible at the wrist only part of the time. I made up my mind that the patient could not rally; whatever the cause of this collapse might be it was bound to take him into eternity.

I now proposed to Dr. Smith to administer the sulphate of atropine subcutaneously, as I had tried it severaltimes in the last three or four years under similar circumstances, *i. e.*, in cases of shock and collapse, and had reason to be pleased with its effects. Little attention was given to the suggestion at the time, but in a few moments Dr. Smith came to me and said the more he thought of my suggestion, the more favorable it struck him. That atropine was a good cardiac stimulant, and was certainly on that account, if on no other, indicated. A solution of atropine, one grain to the ounce of distilled water was obtained immediately. Seven drops of this solution were injected subcutaneously in the upper part of the right arm. Dr. Smith gave the injection just before starting for home, about 12:05 A. M. In fifteen minutes the perspiration was much less, and did not feel so cold. In twenty-five minutes the whole cutaneous surface was dry, and the trunk began to feel warm and in one hour from the injection, the hands and feet as well as the whole body were warm. The pupils were slightly dilated, and there was slight redness—a feeble blush—about the cheeks, neck and back of hands, and the lips and ears were of a pale red color. Entire consciousness rapidly returned and the patient began to take beef tea, gruel, etc., etc. He now told us that he had known nothing since the time the upper abscess was hyperdistended the third time.

Dr. C. H. H. Sayre and myself left the patient at 7:30 A. M., and Prof. Sayre saw him a little after 8. He had passed urine, which, owing to its peculiar color, was saved. When the professor saw it, he recognized it at once as containing carbolic acid, and, on evaporation, it was fully confirmed by the formation of carbolic acid crystals in great abundance. This cleared up the mystery. The urine was of a greenish brown color, which gradually faded into yellowish green, and then toward the normal color, which it reached at the end of the second day. In the afternoon of the 21st of January, there was a hectic flush on the patient's cheek; the temperature was 103⅘°; pulse 120. The following day the temperature was 100°; pulse 100. Cellulitis of the upper part of the posterior femoral and lower portion of the gluteal regions followed, which, however, subsided in a few days under appropriate treatment.

I have given the above history somewhat minutely, and at considerable length. Hoping it may in some degree prove as interesting to the reader as it did to those who had him under observation.

I will now call attention to a few points, which I hope may prove not unworthy of consideration. Firstly: As regards the extreme chronicity of the knee joint disease. This is, however, not a peculiarity in this individual case, as the majority of cases run a more or less protracted course. In many cases the disease is started by a wrench, blow, or concussion, from which the patient soon recovers. He goes on for a time—months and may be years—getting better and getting worse. He is taken from one physician to another. For a time it is considered that "nothing will grow out of it," or a bottle of liniment is recommended as a cure for him. The patient gradually grows worse and worse; his general health suffers more and more. He is taken to another physician, who looks the case over, finds the general health depreciated. He now examines the knee and finds it swollen, the veins coursing over it enlarged, warmer than its fellow; the leg flexed on the thigh, rotated outwards, and more or less subluxated. The first thing inquired into by the physician is the family history, as regards their liability to consumption or scrofulous affections. In order for his diagnosis to be a complete triumph, he likes very much to hear of one or more cases of consumption in the family history, but should he fail to find this evidence it makes but little difference with the diagnosis. It is gravely announced that it is a disease of the joint of scrofulous origin; that the patient has a scrofulous diathesis, or he could not have contracted that disease. The usual anti-scrofulous

remedies are prescribed, with out-door exercise, and the remedy which would do the patient the most good, viz., absolute rest of the joint, is in all cases where the patient has chronic knee joint disease, and the physician scrofula of the encephalon, as in the one just related, entirely ignored. The injury may be very slight at first, which would soon recover under rest, but the joint is used daily, the injured parts irritated continually, and how can it it recover? The diseased process continues to extend, and sooner or later, if the irritation is systematically practiced, as it is when the patient is allowed to take daily exercise it will end in destructive disease of the joint. When physicians who have these cases to treat, get the idea out of their heads that all these cases must of necessity be due to a scrofulous diathesis; that local treatment is of no avail, and to regard the disease is always due to an injury; that the majority of cases bear no sort of relation to scrofula, and that the treatment must be to the joint directly, and not pass through the mouth in the shape of cod liver oil, etc., etc., the better it will be for the patients. If any of the eminent gentlemen that were consulted by our patient had been consulted about an inflamed eye or testicle, the first thing, in all probability, they would have thought of would be rest, and especially if these organs had been kept moving the greater part of the time. This rest can be given without depriving the patient of the benefit of fresh air. I had the scrofulous theory thoroughly fixed on my mind during my college years, and accepted it as true for many years. It was finally doubted, then attacked, and many, as well as myself, have been on the ragged edge of doubt some years, but when I am able to see with my own eyes the disease of all others considered the most scrofulous of all the chronic bone affections, viz., chronic sacro-iliac disease occur in two subjects, who, for physical development and strength for their age, I have never seen excelled, I must throw up my faith in the inspiration of the old doctrine that has almost become sacred on account of its great age and many distinguished worshippers. The two patients referred to with sacro iliac disease are both young men; one aged 14 and the other 17 years. Their family records are excellent. The one 14 years of of age weighs 130 pounds, and is the most muscular young man I ever saw (with one exception, viz., the Cuban boy given below), the very picture of health. I saw him one year after he was cured. The second, a young man from Cuba, weighing 180 pounds, and not one pound of surplus fat on him; this patient has been suffering for two years. In both the disease was brought on by an injury. Besides these two most extraordinary cases, I have seen many with the various joints affected; others entirely cured of them, and if I am allowed to pass judgment by what I have seen, I must, in all honesty, say with Prof. Sayre, that scrofula has very little influence in the causation, and that although the disease may occur in a scrofulous subject, these are a small proportion, and even in them, we must have an injury as the starting point. Secondly: Since the introduction and extensive use of carbolic acid by Mr. Lister in surgical practice, many modifications of his practice have been put into use in the hope of improvement. At least I hope this may be the spirit which has caused the innumerable modifications of what is now known as Listerism. But I am very much afraid that this has not always been the point arrived at, *i. e.*, to improve on Mr. Lister. On the contrary, I am of the opinion, and I speak advisedly, that in many cases it has been from a want of honesty and nobleness, to give merit its due reward. Instead of Mr. Lister's, all sorts of methods have been invented, and may I ask in all honesty, have any of them excelled in results the method so successfully used by Mr. Lister? Many who first derided this method after becoming convinced that it was something more than moonshine, in place of coming out and making open confession, have tried to modify it in all sorts of ways, by trying methods which their own *genius* prompted—anything except that recommended by Mr. Lister. Of no class of surgical cases can this be said more truthfully than of chronic abscess. One of these methods is known as Callenderism. This, as has been shown by the above history, consists in hyperdistending the sac repeatedly after evacuating the abscess, until the carbolic water is returned perfectly clear. It may be asked, when is the sac hyperdistended, and can we always stop the hyperdistention short of breaking or tearing the sac? The pressure required at one time or under some circumstances, would be entirely inadequate in another. Again, one sac will bear a certain degree of distension with impunity to the integrity of its walls, while the same degree of distension would tear another. But not only in rupture of the sac do we run a risk of bad consequences by this method, for it has been discovered that the pyogenic membrane often rapidly absorbs the carbolic water injected. Now, at Bellevue Hospital, they have become extremely cautious in injecting carbolic water into large sacs. On several occasions they have obtained some very unpleasant symptoms after doing so, and in consequence they have used the carbolic acid much weaker in large abscesses, carrying the dilution as high as 1–100. Thirdly, the wonderfully happy turn of the case after the hypodermic use of atropine. Some years ago I used to take belladonna for head ache, and I noticed when I took rather full dose that my pulse became accelerated, my skin hot and dry; I felt much as when suffering from moderate fever. On several occasions I took my temperature, when I found it from 1° to 2° Fahr., higher. This condition I noticed on others, and more especially when I had given a little too much atropine hypodermically. One case I remember in particular. A gentleman had become addicted to the hypodermic use of morphia, using from one-half to two-thirds of a grain several times a day. I persuaded him to let me try atropine; obtaining his consent I gave him one-fortieth part of a grain the first dose. In an hour I was sent for, the messenger stating that Mr. —— had a high fever. When I saw him his face looked scarlet, and the whole cutaneous surface was red. The body felt very warm; pulse 110°; the mouth and throat were dry; pupils dilated; patient somewhat frightened, but was soon quieted. The effects gradually passed away. From this experience I concluded to try it in collapse and shock, and have, as in the above instance, found it very beneficial in many instances. Theoretically, it

certainly answers the requirements. It is on this ground, what I observed in myself and others, when the ordinary dose was exceeded, that I came to use it in cases where the vital functions were depressed, as we see them in collapse and shock. I will not take the reader's time to give the theory of its action, whether it stimulates one set of nerves or depresses the other. It acts upon the heart in a manner so as to increase its force and accelerate its action; it stimulates the respiratory process; it dilates the contracted capillaries in the cutaneous and mucous tissues, and in this way brings the blood to the surface and causes an active circulation in them; and last, but not least, causes an elevation of temperature. What are the conditions we get in shock or collapse? The heart becomes suddenly feeble, respiration infrequent and shallow; the blood recedes from the surface, and the temperature falls. Atropine will counteract these conditions better than any other one remedy that I know of. I do not recommend it as a panacea, but as the theory has answered well in practice in my hands, I give my experience with the hope that it may receive trial from others.

[Written for the Therapeutic Gazette.]

Commercial Distinctions of the Narcotic Leaves.

By V. M. Spalding, B. A., Assistant Professor University of Michigan, Ann Arbor.

THE so-called narcotic leaves, well known as the source of atropia, aconitia, digitalin and other important principles, occur in commerce in very variable forms and conditions, often showing but little resemblance to perfectly fresh leaves of the same species, and on that account very perplexing to the student or pharmacist who attempts to identify them by descriptions drawn from leaves while still in a fresh condition or from pressed specimens in herbaria. One of the most intelligent druggists in the State said to the writer in a recent conversation that he was accustomed to distinguish the narcotic leaves wholly by their odor, a character only less inconstant and uncertain than form and color, both of which are described at length in the various pharmaceutical works, but very little, however, to the satisfaction of any one who tries to apply the description to the dried, broken and distorted fragments labeled "Fol. Digital.," "Fol. Belladon.," etc. A few weeks ago an attempt was made by some of the students in the microscopical laboratory of the University* to fix upon some characters not given in the common works of reference, which should furnish a more ready and certain means of identification of these drugs in their ordinary commercial form. The following are their results, supplemented by further observations of my own:

1. *Belladonna.* The very thin texture of the dried leaves is characteristic. This alone, however, will not distinguish them from the leaves of stramonium or conium. But belladonna leaves have entire margins, while those of the two other species just mentioned are cut and toothed. The belladonna leaf, too, has a peculiar dull, brownish-green color, and if there is enough of the sample, and it has not been kept too long, its characteristic odor may be recognized. A more distinctive mark than any of these, however, is afforded by the presence of minute hairs, which, though not very numerous, are readily found in considerable numbers along the veins or on the petioles, especially of the younger leaves.

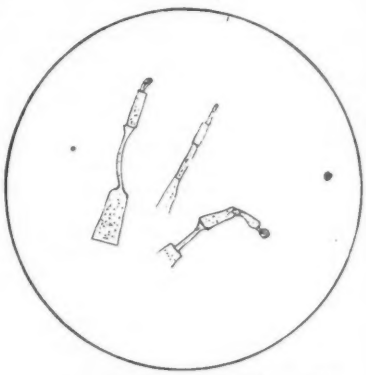

Fig. 1.—Hairs of Atropa Belladonna. X 66.

Examined with a low power they are found to be thin-walled, jointed, nearly empty, and always more or less collapsed. The accompanying figure represents a few of these taken from dried commercial samples that had been handled until they were much broken and were otherwise in poor condition.* Each hair is made up of three, four, or more conical cells, placed end to end, the terminal cell rounding out a little, and having a brownish color, as if glandular in structure, while the remaining cells are nearly hyaline, but present a dotted appearance, due to the granular remnants of the protoplasm with which they were filled when living.

2. *Stramonium.* The thorn apple has been very widely introduced into this country, and is familiar to every botanical student, and on that account is perhaps more readily recognized when it appears as a drug. Its thick, juicy leaves, with their

Fig. 2.—Hairs and Glands of Datura Stramonium. X 66.

* Messrs. Reeve and Perry, of the senior pharmacy class.

* In this and in some of the other figures the basal cell is represented as broken off, no attempt being made in these instances to represent its connection with the epidermis.

deeply angular margin and disagreeable odor, which is more or less persistent in the dried specimen, are characteristic. As the leaves are nearly smooth, only a few scattering hairs are to be found for microscopical examination. These bear considerable resemblance to those of belladonna. They are jointed, thin in texture, often shriveled and twisted, and present nearly the same granular appearance as those of the latter drug. Their terminal cell, however, is uniformly of the same texture and color as the rest, instead of being glandular, as in belladonna. Accompanying the hairs and rising but a little way from the epidermis of the leaf are numerous short-stalked glands containing a brownish-colored substance (b, Fig. 2). None of these appear on the belladonna leaf.

3. *Aconite.* The leaves of aconite are firm in texture, green and stiff when dried, and from the fact that they are naturally divided into narrow segments, even the dried specimens of commerce show in this respect a marked difference from those already described. Only a few hairs are to be

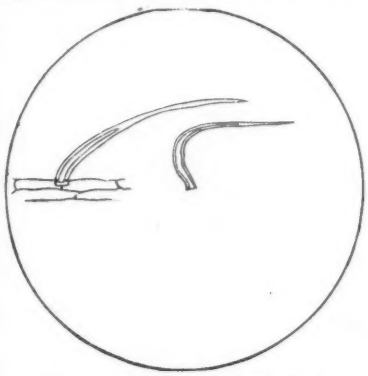

Fig. 3.—Hairs of Aconitum Napellus. X 66.

found, and these are to be looked for chiefly on the stems or on the younger leaves. They are very slender, unicellular, with thickened walls, and accordingly not shriveled nor twisted, tapering to a long point, and in this part solid, but at the base showing a central cavity.

4. *Conium.* The leaves of conium (poison hemlock) are readily distinguished from any of the other narcotic leaves by their form and texture and by the other characters usually given in dispensatories. Microscopic examination adds but little to the means of their identification.

5. *Hyoscyamus.* The leaves of hyoscyamus furnish very distinctive characters, rendering the identification of even quite poor specimens comparatively easy. The peculiar dirty-green color of the dried leaves, with their prominent, light-colored, hairy midrib, the glandular hairy capsules, often present in considerable quantity, and the peculiar disagreeable odor, are perhaps the most prominent features noticeable in a cursory examination. The microscopic characters are still more striking. The whole plant is decidedly hairy, especially on the stems and capsules and on the midribs of the leaves. A low power is sufficient to show plainly the peculiar appearance and structure of the appendages with which those parts are covered. The glandular hairs (a, Fig. 4) are most abundant on the capsules. They consist of empty cells placed in rows and terminated by a large brownish-yellow gland, filled with granular and oily matter, and often showing a more or less distinct division into a number of smaller parts, while in other cases no such division is manifest. Associated with these, but occurring in larger numbers on the stalks, are long, silky hairs composed of thin-walled cells, which are more or less shriveled in

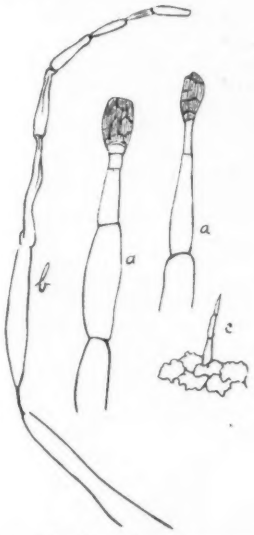

Fig. 4.—Hairs and Glandular Hairs of Hyoscyamus Niger. X 66.

drying, as shown at b, Fig. 4. These are often nearly or quite half an inch long, and consequently only a small part of the hair can well be represented in a microscopic drawing. For the same reason only the terminal portion of the glandular hairs is shown in the figure. With these large hairs much smaller ones occur in considerable numbers together with others of intermediate sizes. One of these, with a portion of the attached epidermis, is represented at c, Fig. 4. They present no peculiarities worthy of special notice.

6. *Digitalis.* In commercial specimens the reticulated venation, rather thick texture, the purple-tinted midrib and the short pubescence which

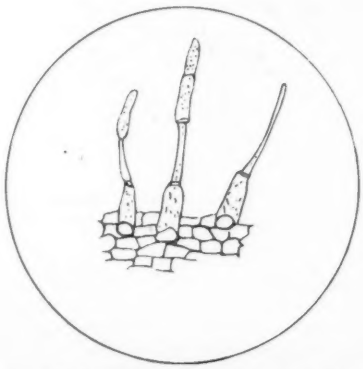

Fig. 5.—Hairs of Digitalis Purpurea, with Fragment of Epidermis Attached. X 150.

covers the surface, are some of the principal characters. The short hairs present under the microscope the appearance represented in Fig. 5. They resemble in some respects those of belladonna, but differ from them in having no gland at the tip. They are also much more numerous than those of belladonna and more uniform in size. They may be distinguished from the hairs of stramonium by the two facts just mentioned and by the additional fact that the short-stalked glands which are associated with the hairs of the latter are absent from the leaves of digitalis.

7. *Tobacco.* The structure of the tobacco leaf presents several points of special interest, but its description does not fall within the design of the present paper.

Enough has now been said of the seven narcotic leaves to show that in their examination no single character can be taken as absolute, and that even a critical microscopic examination should in all cases be supplemented by close observation of external characters and sensible properties. It is, however, claimed for the microscope that in work of this kind it constitutes a most important adjunct for the determination of the purity of crude drugs, and is not infrequently a means of arriving at a certain conclusion where without it there would have been little but guess-work.

ASCLEPIAS CURASSAVICA. (Bloodflower.)

[Written for The Therapeutic Gazette.]

Asclepias Curassavica—(Bloodflower.)

By C. W. Hansen, M. D., Jamaica.

LEAVES lanceolate, opposite and decussated, petioled acute, entire, smooth on both sides. Stem single, from one to three feet high, green, round, upright, pubescent, jointed and milky; flowers in umbels; umbels erect, peduncled. Peduncle the length of the leaves; pedicles shorter, one-flowered; involure none; leaflets of the calyx reflex.

Barham calls this plant bloodflower, and says it is so called from its stopping bleeding when all other remedies have failed. I knew a gentleman that had such a flux of blood from the hæmorrhoids that there was no stopping it; he himself and his friends despairing of his life. At last he was advised to use this flower, which was bruised, the juice pressed out and given with a syringe, by which he was perfectly cured. I had a patient that had a virulent gonorrhœa, and after I had carried off the virulence, and began to use balsamics and astringents, I found it would not stop, and all the medicines I could think of were of no purpose for above twelve months. At last he took a decoction of the flowers, leaves and stalk of this plant twice a day for five or six days, and it made him perfectly well. Lately, an old gentleman consulted me who had a gleet upon him for many years, which he apprehended was weakness of the vessels, for he was very well in other respects. I advised him to make a tea of the dried flowers and drink in the place of other tea for a month, at the end of which time he reported that it had made him entirely well, and that it was worth its weight in gold. I have known many old gleets cured by it, and I question not but it may be useful to women for fluor albus and other excessive discharges.

Dr. A. Robinson and Dr. Wright commend the plant highly as a hæmostatic and vermifuge. Dr. Wright, writing in the latter connection, says: "The juice of the leaves is often given to persons addicted with worms, from a teaspoonful to an ounce for a dose, on an empty stomach. In this way I can vouch for its powerful and salutary effect. When given in large doses it acts as a mild emetic or purgative, and in worm fevers also as a diaphoretic and diuretic. Thus while it expels the worms, it brings about a crisis."

[Written for The Therapeutic Gazette.]

Subcutaneous Injections of Carbolic Acid in Erysipelas.

By John E. Brackett, M. D., Prof. of Materia Medica and Therapeutics in Medical Dep't Howard University, and Assistant Surgeon at Providence Hospital, Washington, D. C.

DURING the past year I have had frequent occasion, both in private and hospital practice, to thoroughly test Prof. Hüter's method of treating erysipelas by hypodermic injections of a solution of carbolic acid, and with the most satisfactory results. Now, while erysipelas is not, in the great majority of cases at least, a dangerous disease, it is always serious, and occurring as a sequence to surgical operations, is annoying in the extreme; any measures, therefore, which are calculated to cut short such an interruption to reparative processes should, and of course will, receive the closest attention from the conscientious practitioner.

That erysipelas is an infectious disease there can, I think, be no further question; and that its etiology is due to an agent which is, in the broadest sense, ferment-like in its action, of great activity, short lived, but capable of rapid reproduction—in a word, bacteria of some form, possibly micrococci, seems to be a pretty well established fact. If such were not the case, the hypodermic injections of carbolic acid would not, necessarily, be of much avail, but accepting the ferment theory as the cause, and understanding that it is owing to its poisonous action on organized ferments that this carbolic acid either limits or prevents such processes of decomposition and fermentation as are due to their, the organisms, presence, we can arrive at a fair comprehension of its *modus operandi* in the following cases:

Case I.—J. M., æt. 43, of intemperate habits, had been on a spree for several days, but suffering at the time I was called to see him from a contusion of thumb and index finger. I applied a solution of lead and opium to the injured parts, and ordered fifteen grains each of bromide of potash and hydrate of chloral to be given at bed-time. On the following morning I observed an erysipelatous blush on the hand, wrist, and extending about midway up the forearm. I immediately prepared a solution of carbolic acid of the following strength:

℞ Acid carbolic,
Alcohol, ăă ʒ ss.
Aquæ dist., ʒ ij.
M.

And of this solution I injected five syringefuls in the hand and arm at points where the redness was most intense; the only medicine given internally was a repetition of the bromide and chloral at night, with the bromide alone morning and noon. On the second day the redness had wholly disappeared from the hand and arm, but had extended to the elbow, which was considerably swollen and of the color peculiar to erysipelas. I injected four syringefuls, at points equally distant, in the inflamed parts, and as the nervousness and insomnia due to the excessive use of alcohol had considerably subsided, stopped the chloral and gave the bromide only at night in thirty grain doses. On the third day there was no further appearance of erysipelas, other than a slight induration about the wrist and elbow, nor did it reappear, so that on the fourth day my patient was well enough to visit his place of business.

Case II.—Mrs. K., æt. 65, ulcer of leg, at which point the erysipelas appeared, and extended gradually upward in spite of the large doses of tincture of iron and sulphate of quinine given internally, and local applications of nitrate of silver, tincture of iodine, poultices of various kinds, etc., etc., prescribed by her attending physician. On the twelfth day after the attack the disease had reached the upper third of the thigh, at which time I was called to see the case, and at once threw eight syringefuls of same solution of carbolic acid as given above into the tissues around the upper margin of the redness, which completely checked the further advance of the disease.

Case III.—Mrs. J., æt. 32, occupation, washerwoman. At the time I was called, found her suffering great pain from an abrasion of the heel which resulted from a tight pair of shoes worn the previous day; the foot and ankle were somewhat swollen, hot and very painful, but no especial amount of redness or other evidence to lead me to suspect erysipelas; so ordered an application of solution of lead and opium, with rest and an elevated posture for the limb, a saline cathartic, and ten grains Dovers powder at night. On the following morning was again called, and found erysipelas of the foot, ankle and leg, extending to near the knee. Used ten syringefuls of carbolic solution injected into various parts of the inflamed limb. No local application nor constitutional treatment. The next day found the ankle and leg much better, but some puffiness about the foot and knee, therefore injected four syringefuls in the foot and the same number around the knee. On the third day the redness and much of the swelling had subsided in the foot and knee, but the inflammation had extended upward to the middle third of the thigh, so injected eight syringefuls of the solution around the upper margin of the redness, and four syringefuls into the inflamed tissues below, and on visiting my patient on the fourth day, found no use for my syringe, and on the fifth day she was walking about.

Case IV.—J. G., æt. 43, admitted to hospital for lacerated wound of hand received in a scuffle with several drunken companions. Was very much intoxicated at the time of his admission, and subsequently suffered from mild attack of delirium tremens; had been a hard drinker for a number of years. Erysipelas first showed itself on the tenth day after his admission, and spread rapidly over the hand and forearm. On the morning following its appearance I injected six syringefuls of the carbolic acid solution into the hand and arm, and repeated the same number the day after, as there yet remained considerable redness and swelling. The third day hand and forearm better, but inflammation extended to arm, and especially violent of the elbow, so that twelve syringefuls were injected, and on the fourth day there was very little evidence of disturbance and no further treatment was considered necessary; but five days after it broke out again, and in a few hours had involved the whole arm to the shoulder. I immediately injected six syringefuls around the upper

margin, and twelve into the arm at various points. The following day there were several spots which looked very much as if a slough might form, and as near as I could determine, about where I had inserted the needle the day previous. No more injections were used, and small sloughs did take place as I had expected, and were quite troublesome for several days; there was no return of the erysipelas.

There were three other cases in the hospital where the carbolic acid injected hypodermically proved quite as satisfactory as those I have mentioned and with no unfavorable symptoms, while twenty-nine cases not under my own observation, but occurring in the hospital, ran the usual course of from ten days to two weeks; two of these died, three suffered from a second relapse, one from a third, and one resulted in a mild form of insanity; and these cases were all treated with iron and quinine, as well as various local applications. Of the two cases treated during this time by myself with iron, quinine, local applications, etc., etc., one was able to leave the house only after the seventeenth day, while the other is still confined to her room, the attack having occurred on the second of February and it is now the third of March.

That the treatment by subcutaneous injection of carbolic acid in erysipelas is vastly superior to any other yet attempted or introduced the foregoing cases, I think, will prove, and that the usual plan of treatment by local applications and the internal administration of constitutional specifics I also think most surgeons will admit to be a failure.

[Written for The Therapeutic Gazette.]

Wild Carrot Seeds.

By M. P. Greensword, M. D., Poughkeepsie, N. Y.

Several years ago I called to see one of the veterans who had served in the late war. He was affected with ascites, and was so helpless that he could not leave his house. He was then being treated by his regimental surgeon, a friend of mine, who I knew did all he could for him. Not wishing to take the case out of the doctor's hands, I told the soldier that I would bring him a bottle of medicine, which he might use if his physician had no objections.

The next time I was in his neighborhood I left the bottle of medicine, expecting it would do some good, as I have used it for several years and find it an excellent diuretic. In the hurry of business I forgot all about the case, and made no more enquiries about it. Several months after this I met the soldier in the street, hale and hearty, and said, "I see you have entirely recovered; your regimental surgeon has done well for you." He replied, "I have to thank you for my cure; so soon as I commenced to use your medicine I gave up all other treatment. I passed immense quantities of urine, and in a few weeks entirely recovered from the dropsy."

I have no doubt the former treatment prepared the way for the success of my remedy, and that the tincture of wild carrot seeds was given at the exact time it was most needed.

[Written for The Therapeutic Gazette.]

Improved Treatment of Felons.

By I. H. Stearns, M. D., Milwaukee, Wis.

FELONS are of an erysipelatous character, and not unfrequently arise from a slight external puncture or other injury. The fact that pressure causes absorption, is a well known physiological law, and this principle should be the basis of the treatment for this most painful of afflictions.

The course that I pursue is this: the finger or part is first bathed with a solution of carbolic acid until the skin is slightly bleached, and then after wiping dry the part is varnished with collodion, covering it thick enough to form a good coat; on drying this contracts, and produces a pressure that is temporarily very painful, and should be relieved by an anodyne. In such case the bowels are almost uniformly constipated, and a cathartic is required. If treated early this plan aborts the felon almost invariably, and if matter has already formed it comes at once to the surface, and an incision through the skin allows it to escape. The most deceptive treatment is by poulticing; it invites suppuration, and entails weeks and perhaps months of suffering, which should be confined to only a few days. The plan here recommended has been employed in hundreds of cases with the most gratifying results.

Abstracts and Translations.

(Translated for the THERAPEUTIC GAZETTE from the Berliner Pharmaceutische Zeitung.)

Critical Notes on American Drugs and their Pharmaceutical and Therapeutical Application.

The Pharmaceutical Society having requested information regarding certain American drugs, reports have been received on the following: Alnus rubra, cerasus Virginiana, frasera Carolinensis, gelseminum sempervirens, hamamelis Virginica, helonias dioica, podophyllum peltatum, sanguinaria Canadensis, scutellaria lateriflora, spigelia Marylandica and stillingia sylvatica. All of these are officinal in the American Pharmacopœia with the exception of alnus, hamamelis and helonias.

(*a.*) *Alnus rubra.* This is the name of the bark of alnus serrulata, used by the eclectics, and as a domestic remedy in the form of decoction for its astringent properties, in diarrhœa and as a febrifuge; also externally as an application to ulcers, etc. Virtues probably due to the tannin contained in it.

(*b.*) *Cerasus Virginiana.* This is the bark of cerasus serotina, or cerasus Virginiana (wild cherry). In the U. S. Pharmacopœia it bears the name of prunus Virginiana, although this botanical name belongs to another species. The bark contains tannin besides amygdalin and a nitrogenous substance like emulsin; therefore hydrocyanic acid is always developed when the bark is macerated in cold water. The cold infusion and syrup are consequently much used in all bronchial and lung affections. It is really an excellent remedy in bronchial irritation combined with cough and expectoration. It has also been praised by quacks as an unfailing remedy in consumption.

(*c.*) *Frasera Carolinensis* is the root of frasera

Waltheri Mich., or frasera Carolinensis Walt (American colombo). It is a pure bitter tonic, greatly resembling gentian, and like this containing gentisic acid and gentiopicrin, being also, like gentian, devoid of starch. The infusion and fluid extract are used. This remedy as well as several others seems to have been adopted in the pharmacopœia principally for the purpose of replacing certain foreign drugs on the score of economy, as well because these indigenous drugs are always obtainable. The country is so large, and in certain isolated districts the difficulty and delay in obtaining imported gentian in good and suitable condition after having passed through many hands is so great that it is certainly more advantageous for the physician to rely on the equally good frasera obtainable in a fresh condition in his own neighborhood. These substitutions are, however, confined to the physician, and to be made only at his express request; no reputable apothecary would venture to replace one medicament by another, although there are in America, as well as elsewhere, tradesmen who are not conscientious.

(*d.*) *Gelseminum Sempervirens.* Root of gelseminum sempervirens Aiton, or gelseminum nitidum Mich. (yellow jessamine). This plant, which has been brought to notice here but a few months ago, is already in use in all parts of the world. It contains an alkaloid, gelsemin, and an acid, the gelseminic, which was proved by Robbins to be identical with æsculin. Gelsemium lessens the frequency of the pulse and depresses the nervous system, and it is therefore much used in fevers, although with great hesitation by some physicians, on account of its powerful nature. It seems to have a direct action on certain branches, especially the first and second of the fifth pair of nerves, and is also one of the most effective remedies for acute or rheumatic neuralgia. Dose of the powdered root, three to ten grains; of the fluid extract, three to ten minims.

(*e.*) *Hamamelis Virginica.* The leaves, bark and young twigs are used, the plant furnishing a rich mine for the specialist. A weak tincture, also called fluid extract, is used in enormous quantities, recommended for hæmorrhoids, wounds and rheumatism. Its reputation is not entirely undeserved, as there is no doubt that good results have followed its application to inflamed surfaces, and it has even been used internally with success in the prevention of threatened abortion. Dose of the decoction (one ounce to the pint), a fluid ounce every two, three or four hours.

(*f.*) *Helonias Dioica* is the root of chamælirium luteum gray or helonias dioica Pursh. (blazing star). It contains a bitter principle, chamælirin, and is used exclusively as a tonic and vermifuge by the eclectics.

(*g.*) *Podophyllum Peltatum.* Rhizome of the plant of that name (mandragora). Contains two resins, one soluble, the other insoluble in ether. It was formerly believed to contain berberina, but the researches of Power have made this extremely doubtful. The resin or resins precipitated from the concentrated tincture by addition of acidulated water furnish the active principle employed; this is officinal under the name resina podophylli, although known to the trade universally as podophyllin. It is a drastic cathartic in the dose of one-sixth to one grain.

(*h.*) *Sanguinaria Canadensis.* The rhizome of this plant (the part used) contains three alkaloids, the most active of which is known as sanguinarina. In small doses it acts as a tonic, at least it increases the appetite. In large doses it is emetic and lessens the frequency of the pulse; in overdoses it causes cardiac sedation. It has been much used in regular practice in the treatment of bronchitis, croup and asthma. Dose of the powder, one to five grains as alterative, as emetic in croup, sixteen to twenty grains.

(*i.*) *Scutellaria Laterifolia.* The whole plant is used, and regarded as a tonic with a tendency to the nervous system. Going out of use, however, and very probably will be dismissed from the pharmacopœia.

(*j.*) *Spigelia Marylandica.* The root is the part used, and although an oil, a resin and a bitter principle have all been obtained from it, there is still some uncertainty as to which one of these ingredients is the real active principle. Spigelia is officinal, and is one of the most prompt and certain remedies against round worms known. It is usually prescribed in combination with a purgative, such as senna. The dose for children is from ten to twenty grains, for adults, one to two drachms or a corresponding quantity of the fluid extract. A preparation very frequently used is the fluid extract of spigelia and senna of the U. S. Pharmacopœia, prepared as follows:

℞ Fluid extract spigeliæ, ʒ x.
" " sennæ, ʒ vi.
Ol. cumini, ♏xx.
" anisi, ♏xx.

M. Dose for adults, two to four drachms, for children, thirty to sixty minims.

(*k.*) *Stillingia Sylvatica* (queen's root). The root of this plant contains an acrid resin, and has been employed in the treatment of scrofula, syphilis, skin and liver disorders. The compound syrup of stillingia is much used in the treatment of syphilis, but like the compound syrup of sarsaparilla, it contains other ingredients which may have an important share in the special effects of the remedy. Dose of the powdered root, fifteen to forty grains.

Piscidia Erythrina.—In the United States piscidia erythrina (Jamaica dogwood) seems to have received an extensive application as an anodyne and narcotic remedy. The generic name indicates the use to which this member of the leguminosæ has long been put, in stupefying fish for the purpose of capture. A tincture of the bark (one to four) has been used for several years in England as a sedative and hypnotic in the dose of four grammes, and enjoys quite a reputation as a remedy for toothache.

Carica Papaya.—Wurz and Bouchut (in Compt. rend. 425) publish the results of their investigations on the juice of this plant, which confirm the existence of the properties attributed to it of acting on fleshy substance in a manner similar to pepsine. They demonstrated the presence of a ferment which has the power of transforming blood-fibrin into peptone, likewise of dissolving fibrin of flesh, coagulated albumen or gluten at a temperature of 40° C. in a few hours; also of coagulating milk and afterwards dissolving the casein, and likewise of acting as a solvent on the false membrane in croup, and on

intestinal worms. Messrs. Wurz and Bouchut are of the opinion that a similar principle is produced by the carniverous plants drosera, nepenthes and darlingtonia.

Marsh Rosemary.—Reed (in Amer. Jour. Pharm., 442) communicates an article on the botanic, chemical and medicinal relations of the statice Caroliniana Walt. (marsh rosemary), of the North American Atlantic coast. Nuttall and other American botanists assign this a position as a variety of the European statice limonum L., from which it differs by the leaves having a flat edge, while in the European species the leaf edge is curled and wavy. The root is a highly prized astringent, and is characterized by a large percentage of tannic acid, which appears to reach a maximum about October, at the time of seed ripening; it is spindle-shaped, branched, fleshy, compact, rough externally and of a purplish-brown color, the length varying with the character of the soil, so that in sandy soil it is short and branched, while in marshy soil it is longer and of less complex form. The proportion of tannic acid, of the variety giving a greenish-black precipitate with ferric chloride, reaches to about seventeen per cent., and consequently larger than in the Brazilian statice which has been introduced several years ago in England as radix baicuru, and recommended as a curative for dysentery and other affections, in the treatment of which the North American variety also enjoys a reputation.

Eriodyction Californicum.—Yerba Santa.—This plant has lately acquired some prominence on the recommendation of Kier as to its value in correcting the bitter taste of quinia salts, which is said to disappear entirely after chewing a few of the leaves. A tincture and syrup are highly spoken of as vehicles for cinchona alkaloids and their salts.

[Translated from the Journal de Thérapeutique, by Dr. C. R. Cullen, Hanover Co., Va., for the Therapeutic Gazette.]

La Melaleuca Paraguariensis.

Dr. Bonpland gives an extended article on the virtues of this drug. The tree is of the myrtle variety, four to five metres in height (a metre is thirty-nine and a third inches) and bears much resemblance to the melaleucas of the Molucca Islands, where it has great reputation as a remedy in many diseases.

1. It has a peculiar penetrating odor.

2. The essence is a clear white liquid, burning entirely, without any residuum, and soluble in alcohol and fixed oils.

3. A tincture, very sweet, made of buds and flowers.

4. A resin, having the consistency of honey, obtained by macerating the woody parts in alcohol, raised to a hot but not burning temperature.

With these products Bonpland asserts that, after forty years of clinical practice, this is a heroic drug in many diseases. The essence is a powerful diffusible stimulant, an energetic sudorific, a good carminative and antispasmodic. He has used it successfully in the following diseases: Neuralgia, rheumatism, acute and chronic gout, syphilis, metallic palsies, intermittent and pernicious fevers, yellow fever and cholera. He further adds: "Being more than 80 years of age, these lines will not probably be read till after my death, and then no speculative object can be even suggestive to any one." In regard to particular diseases in which it is employed he remarks: "Syphilis causes much less ravages in the human system in South America than in the cold climates of Europe and of North America. In Montevideo, a cold country comparatively with Brazil, I have seen cases altogether incurable, completely cured by an exchange of climate. The cure is accomplished by a continuous and profuse perspiration. This powerful febrifuge became in my hands a substitute for mercury and iodine. In addition to the medicine, internally, a bath of the temperature of forty degrees Centigrade (60° Fahrenheit), and lasting fifty minutes, with the buds and flowers of this plant. During the bath and afterwards the sweating should be kept up by drinking every ten minutes six drops of the essence in sweetened water, and in ten days the cure is effected."

NOTE BY TRANSLATOR.—The greater severity of the disease in cold climates is partly owing to the enormous amount of rich food and heating liquors. Among the Indians and Spaniards of South California the disease is very often acquired as well as hereditary, and yet owing to their temperate habits the disease lasts many years and seldom produces death, whilst among Americans it is rapid, and unless taken in time, is often fatal. The yerba mansa (domestic plantain) is used extensively among the natives in this disease.

Chaulmoogra Oil.

According to the Berliner Pharmaceutische Zeitung of Dec. 24th, 1879, John Moss has analyzed chaulmoogra oil with the following results: He found it to consist of a mixture of fatty acids and glycerines of fatty acids. The principal portion consists of palmitin and palmitic acid, amounting to sixty-three per cent., besides eleven and seven-tenths per cent. of a peculiar fatty acid, which has been called gynocardic acid, and to which the acrid taste of the oil seems to be due. The composition of this acid is very probably $C_{14}H_{24}O_2$, belonging to the series $C_nH_{2n-4}O_2$. There were also present in this oil four per cent. of hypogæic acid and two and one-half per cent. of an acid found in cocoanut oil, and which has been named by its discoverer, St. Evre, cocinic acid. Unquestionably the effects of chaulmoogra oil on the skin are to be ascribed to the gynocardic acid.

[From the Berliner Pharmaceutische Zeitung, Dec. 24th, 1879.]

Melia Azedarach.

An interesting communication regarding this tree comes from J. Jacobs (Amer. Jour. Pharm., 436). This tree now being grown in the southern portion of the United States is of great beauty, and in consideration thereof has received the name "Pride of China," or "Pride of India;" from the appearance of its blossoms also the name of Indian lilac; and from the use of its fruits for rose wreaths, the name of prayer, or paternoster, tree. It is worthy of mention that during the civil war the ripe fruit was used in Georgia as fermentable material for the production of whisky. A fixed oil can be obtained by expression and used for the manufacture of soap. The claims of the bark of this tree to valuable anthelmintic properties have been confirmed by Jacobs, who refers the activity to a yellowish-white resin contained in the bast-fibre.

[J. F. Hammond, M. D., in Medical Tribune.]

Damiana.

This new medical agent has been recently introduced to the medical profession. At first its supposed aphrodisiac properties caused demand, and consequently a large amount found its way into the drug market. It can be said truthfully of it that even the genuine drug has not always given satisfactory results, yet it has been very definitely determined to be an agent of high value as an invigorator of the sexual apparatus of both sexes.

The worst block in its way to professional confidence is the large amount of spurious preparations upon the shelves of our merchants. Very much of the so-called damiana now in market is, in my judgment, spurious, or has been rendered worthless from age or improper handling. Hence the constant disappointment following the employment of the worthless, has reacted with telling effect upon the genuine drug.

In experimenting with the drug I accidentally discovered its true therapeutic value. It is a great remedy in renal and vesical diseases. In nephritic albuminuria the results were from the beginning most marked; the albumen slowly but steadily disappeared, the patient at the same time constantly improving until perfect restoration to health ensued. In combination with atropia it is one of our best remedies in inflammatory diseases of the kidneys.

In diabetes the saccharine secretion, as well as the water, is notably and advantageously diminished.

The following formula will give the most satisfactory results:

℞ Damianæ tinct.,
Hydrastis can. tinct., ää ʒij.
Nucis vomicæ tinct., ʒij.
Sodæ hypophosph.,
Potassæ hypophosph. ää ʒij.
Syrupi aurantii cort.
Cardamomi comp. tinct., ää ʒss.
Aquæ dist. q. s., ad. ʒviij.

M. Sig. Dessert-spoonful after meals and at bedtime.

Although slower and more silent than buchu, uva ursi, and other positive diuretics, the true damiana, persistently administered, will meet every indication fulfilled by these drugs, and is and must prove their superior in all inflammatory and mucous membrane diseases of the genito-urinary apparatus. Damiana in combination with tincture cimicifuga is an elegant remedy in painful diseases of the muscular coat of the bladder, and in rheumatic or neurotic diseases involving the kidneys:

℞ Damianæ tinct. ʒjss.
Cimicifugæ rac. tinct. ʒss.

M. Sig. Teaspoonful every four hours.

In painful hæmorrhagic diseases of the kidneys and bladder I have found nothing superior to—

℞ Damianæ tinct. ʒij.
Rhus glab. tinct. ʒij.
Morphiæ sulph. grs. iij.

M. Sig. Teaspoonful once in four hours.

In enlarged prostate and acute and sub-acute inflammations of that gland, damiana in combination with phytolacca dec. and potassium bromide, will be found very valuable:

℞ Damianæ tinct. ʒiij.
Phytolacca dec. tinct. ʒj.
Potassii bromidi, ʒss.
Syrupi zingiberis, ʒss.
Aquæ dest. q. s., ad. ʒvj.

M. Sig. Dessert-spoonful every four hours until patient is fully relieved; afterward about once in six or eight hours until cured.

My conclusions are the result of two years' close experimental observation.

Dialysed Iron.

In an editorial of the Berlin Pharmaceutische Zeitung of Nov. 29th, 1879, dialysed iron receives the following tribute: "Experience has taught us the real value of dialysed iron, in spite of the attempted detraction of Personne and others, who undoubtedly experimented with an article of poor quality. In addition, the freedom from inky taste, its property of not attacking the teeth, and also of producing good results in moderate doses, all speak in favor of the remedy. The digestive apparatus is capable of absorbing only a certain limited quantity of iron, and whatever is in excess of this amount passes off with the fæces. If we select as our remedy the officinal hydrated oxide of iron, we find after its administration that only a minute quantity has been dissolved by the acids of the stomach in its passage through that organ, and still the continued use produces marked results, due to absorption of iron. We know of several cases of chlorosis where recovery has followed the treatment with dialysed iron alone. In the cases where it has been employed it has never been found necessary to use other ferruginous preparations. We do not wish to be understood as claiming that other combinations of iron might not have produced a speedier cure, but do insist that the disclaimer of the efficacy of the preparation under consideration has no good foundation. There are in our country (Germany) many physicians who have for years used dialysed iron in preference to other forms of iron, and still use it. To arrive at a satisfactory conclusion regarding the chemical behavior of dialysed iron, we may make the following test, and infer from it that a similar reaction takes place in the stomach: In a test tube containing some dilute muriatic acid drop a little dialysed iron. A precipitate will occur, but if the test tube and contents be now exposed to a temperature of 100° to 110° for one to two hours and shaken frequently, we find no longer a turbid mixture, but a clear solution. This simple experiment is a sufficient refutation of the assertion that it is such a very insoluble, armor-plated preparation.

Correspondence.

Ammonia Nitrate.

I have received the February number of the THERAPEUTIC GAZETTE. I like the journal very much, and shall, as I have opportunity, recommend it.

On page 44 I find a query respecting ammonia nitrate, its dose, etc. Now it so happens that I have used that saline for about forty years. In 1840, before I could purchase the salt, I formed a theory of its value, prepared some, and used it to my satisfaction, and have used it ever since with increasing favor. The dose may be the same as that of potassa nitrate; it should not, however, be prescribed in the form of powder, as it is quite

deliquescent. I use it as an antiphlogistic in all fevers and inflammations, internally, and externally as lotion, or in cataplasm. I never knew it do harm. I have found it particularly appropriate in scarlatina, erythema and erysipelas. It is also diaphoretic and diuretic; in irritable bladder, strangury and all the forms of dysuria it is valuable, and as it is not so exhausting or depressing as nitrate potassa it is more appropriate in the ataxic forms of fever, in diphtheria, and the like. I dissolve one ounce in alcohol one ounce, water two ounces; mix and stopple; this is a convenient form for extemporaneous use. In uretic disorders I use spts. eth. nit. along with it. Indeed it will go along with anything but mineral acids, its incompatibilities are so very few.

With cold water mixing two to eight drachms to one pint, we form an eligible lotion for inflammation, etc., as above. And I am inclined to think that any judicious practitioner will approve and apply its use in cynanche, rheumatism, etc., etc. Your most obedient,

WM. F. TEULON, M. D.

NEWTON, Mass, March 3d, 1880.

Diphtheria.

Some time ago it occurred to me that the same constitutional treatment that cured diphtheria would prevent its development, and I determined to try it, and have done so in six cases (all that I have treated since the thought occurred to me), and in every case with entire success. I will give you one case as a sample of the whole.

Was called to see Det. F., who was taken the previous night with severe chills followed by high fever and sore throat. Found large diphtheritic patches in the throat. After attending to him I prescribed for his wife, four children and servant the same constitutional remedies (cinchonidia or quinine, chlorate of potassa and iron in full doses) that I would have given had they been subjects of the disease, which treatment I continued for ten days, and none of the family except Det. F. himself had any appearance of the disease. I introduced the subject at our last county medical meeting, asking the members, as I now ask the readers of this article, to further test the matter and report through the medical press.

I am well aware that six cases is too small a number on which to establish anything like a general rule, while, *per contra*, six consecutive cases of success requires and warrants us to make more extensive trial of the remedies as a prophylactic, as, if satisfactory, it will aid materially in preventing the spread of the disease; for, if it be confined to one in a family, the remaining members can generally take exclusive care of the patient, whereas if all are smitten, as is often the case, humanity prompts their neighbors to go into their houses to minister to their wants, and thus the disease is often spread in the community.

T. R. BUCKHAM, A. M., M. D.

FLINT, Mich., February 21, 1880.

A Gonorrhoea Remedy.

The large circulation of your journal throughout the States and territories makes it especially valuable in introducing new remedies, and in making public properly the merits of others. Notwithstanding this, however, I have vainly searched its pages for the name of a plant that grows in the pan-handle of Texas and in New Mexico, that is used by the Mexicans and Indians as a sovereign remedy for gonorrhœa. Recently while on a buffalo hunt about the head of Red river, Texas, one of our drivers came to me for a treatment for clap. Not expecting to meet with such a case, I could do nothing for him but prescribe an injection, and told him that it would do no good as he had no syringe. One of these he made, having his moulds of paper and casting his syringe out of melted rifle balls, and, by the way, it worked to perfection. His case being a neglected one, responded slowly to astringents. Seeing this, he said if he could get to Dr. Mitchells', an old ex-Georgian, who had married years ago a Mexican daughter and who lived at the mouth of the Arroya Bonita, he could procure a weed that the Mexicans used as a tea for such cases, that he had taken in a former case of clap with complete relief inside of a week. Others also speaking of this same plant, caused me to become so desirous of knowing more about it, that my patient and myself visited the home of Dr. Mitchell soon after, only, however, to find it deserted, the Indians having driven him off. I write this in this form so as to give all the particulars I know. Now what is the name of this plant? We ought to know and doubtless some of your subscribers can tell us. Respectfully yours,

WM. E. MAULL, M. D.

The Sulphites in Erysipelas.

At your request I will answer, categorically, the questions submitted by one of your readers touching my use of the sulphites in erysipelas, a reference to which he noticed in the proceedings of the Wayne County Medical Society, as published in a recent number of your estimable journal:

1. I have found the sulphites of soda and magnesia to be very valuable in the treatment of erysipelas.

2. I give the sulphite of magnesia internally in doses of twenty grains in an ounce of peppermint water every four hours, and make constant application of sulphite of soda in solution, twenty grains to the ounce, to the inflamed surface, by means of cloths saturated with the solution.

3. I administer the magnesia salt internally in preference to the soda because it is less soluble in water, and, therefore, less disagreeable to the taste. The soda salt is applied externally because of its being more soluble.

4. These salts do not interfere with the employment of muriate tincture of iron, provided the latter be given midway between the times of giving the sulphites—in order to avoid mixture of the salt with the acid of the iron.

5. The addition of dilute vinegar to the solution for external use assists its action by liberating the sulphurous acid.

J. J. MULHERON, M. D.

DETROIT, March 4th, 1880.

Goa Powder.

December 18th, 1879, Miss M., æt. 12 years, came to my office. Said she would like to have me "examine her arm and tell her what kind of breaking out she had." On examination I found the arm from the elbow to the shoulder, and part

of the back, affected with psoriasis. I put her upon arsenic (Fowler's solution), and made an ointment of Goa powder and cosmoline, with directions to apply it morning and evening, and to wash the parts with carbolic acid soap every evening. In less than a fortnight she was entirely well. I directed a weaker ointment toward the latter part of the treatment, and continued it for several days after every trace of the eruption had disappeared, so as to prevent a return. Up to this date she remains well.

I have great confidence in Goa powder in the treatment of psoriasis. I have used nearly all the old remedies, and also chrysophanic acid, the active principle of Goa powder, but never had as good results as with the crude drug. The high character and wide reputation the remedy has achieved, and the hearty support given it by the medical profession since its first introduction, are a sufficient guarantee of its superior virtue in the treatment of psoriasis.

J. N. PAGE, M. D.

MARSHFIELD, Ind., February 17th, 1880.

Cascara Sagrada.

About a year ago I reported decided success with cascara sagrada and berberis aquifolium. The lapse of time and repeated trials have only served to strengthen my faith in their usefulness. During the winter of 1876–7, having but recently recovered from a severe attack of pneumonia, I was greatly troubled with constipation. I procured a sample of cascara sagrada and began taking it; after using ten or twelve doses, taken carelessly and at irregular intervals, I was much surprised to find myself cured. For a year after this my bowels were as regular as need be; soon after this a slight return of the old trouble called for a correspondingly slight exhibition of the cascara, since when I have been sufficiently "regular" to enable me to "throw physic to the dogs."

I have also found a combination of grindelia robusta and yerba santa of great service in chronic bronchitis, and believe them to be a valuable addition to the conventional remedies for that disease, if not superior to all others.

I cannot close without congratulating you on the magnificent appearance of your journal. In typographical excellence I believe it to be without a rival.

H. H. BAKER, M. D.

CLEVELAND, O., March 4th, 1880.

Jamaica Dogwood.

A gentleman came into my office, and asked me to prescribe an anodyne for him, as he was suffering pain from a recent fracture of the radius, stating that opiates did not agree with him. I ordered fluid extract piscidia erythrina in half drachm doses. In two hours he returned and asked me if I knew the remedy was good for a cough. He stated he had been for several weeks suffering with a troublesome dry cough and great dyspnœa, and he found on taking my prescription for pain, which it perfectly relieved, also great relief to his cough, which, he stated, had become loose and expectoration easy, and that the medicine produced a feeling of warmth and comfort in the bronchi. He had at one time been a practicing physician, and he compared the effects of the medicine on the lungs and bronchi to that of cubebs; asked the name of the drug, and requested the gentleman in charge of my dispensary to put up double the quantity I had prescribed in the morning. So, in addition to its admirable properties as an anodyne and hypnotic, it seems to be a stimulating expectorant; and I have since that time been in the habit of prescribing it as an ingredient in cough mixtures, to which I find it a valuable addition.

F. E. DANIEL, M. D.

JACKSON, Miss., February 11, 1880.

Cascara Sagrada.

This drug was first brought to my notice by S. M. Luther, druggist, Garrettsville, Ohio, who had used it successfully in his own case, and a prescription was put up for my wife. It was also used in my own case with marked benefit. I have also recommended it to Mr. D. Santora, of this place, using the formula given by Dr. Geo. W. Cook, of Syracuse, N. Y., in December (1879) number of NEW PREPARATIONS. Mr. S. had exhausted nearly the entire catalogue of laxatives, cathartics, etc., with the effect to render his last condition worse than the first, but he informs me that with the cascara he has natural, easy evacuations for the first time in months, with a general improvement in digestion, freedom from the terrible attacks of headache formerly experienced, and a very marked change for the better in his appearance. I give you the foregoing for what it may be worth. Yours very respectfully,

C. W. TRASK, M. D.

MANTUA, O., February 3d, 1880.

Viburnum Prunifolium.

In regard to viburnum prunifolium (black haw), I have found it to be superior to any medicine ever used in preventing miscarriages; have tried it in several cases, two of which will be mentioned. One, a Mrs. J., in her seventh month from jumping from a buggy, brought on pains, which were violent and continued with intensity one week, and gradually yielding. Since then labor at regular term has taken place. Was compelled to add an anodyne, and used thirty grains hydrate chloral every two or three hours, according to circumstances; when the stomach was nauseated forty grains by enema were given. In another case, there was violent excitement in the death of a child, resulting in cramps and pains, which continued for several days. Treatment the same as in the other case, and recovery taking place.

C. R. CULLEN, M. D.

RICHMOND, Va., Feb. 10, 1880.

Cascara Sagrada.

I have used fluid extract cascara sagrada in habitual constipation caused by torpor of the muscular structure and deficient secretion, and in every case it has fulfilled my most sanguine anticipations. It is particularly good in the constipation of pregnancy, and, in small doses, in the constipation of young children. I have recently used it with excellent results in a case of torpor of the bowels following a severe attack of gastrodynia. In fine, it has furnished me the elegant and reliable remedy for habitual constipation that I have long sought for in vain, after using aloes, podophyllin, *et id genus omne*.

THOS. H. URQUHART, M. D.

HASTINGS, Neb., January 19th, 1880.

The Therapeutic Gazette

WM. BRODIE, M. D., Editor.
64 Lafayette Avenue.

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The Reception of New Remedies.

As regards the reception of advances in materia medica, and as a corollary advances in therapeutics, the medical profession is divided into two classes. One of these classes comprises the great bulk of the active, working practitioners—those whose daily calling it is to minister to the sick; the other embraces the comparatively small, but, as a rule, very influential, portion of the profession for the most part engaged in our leading medical schools as teachers of the several branches into which medicine, for convenience of study, is divided. It is the experience of those whose observation has been directed to the subject, that the active, working practitioner is, as a rule, given to submitting to a trial such remedies as come to him backed by testimony which bears internal evidence of reliability, and that the other class to which we refer are wont, as a rule, not only to regard with distrust, but positively to condemn, anything which does not come to them from sources different from those which justify the practical physician in giving an article respectful consideration at least. The testimony to which alone our medical teachers appear to give credence is that coming from those who, like themselves, are, in our opinion, least fitted to express an authoritative opinion. With them the testimony of some foreign teacher, or author, whose name wears a copious appendix indicative of degrees attained, will far outweigh that of him whose life is spent in watching disease and the manner in which it is influenced by drugs. The reasons of this difference in the reception of new remedies are not difficult to determine, and when determined they are by no means inexplicable. In the first place, from his daily contact with disease the practical physician realizes but too often the insufficiency of the means at his disposal, and with a view to strengthening his hands for the more efficient discharge of his trust he is not slow to test the virtue of any new thing culled from nature in the hope that he may be able more successfully to meet indications in particular diseases and modifications of diseases. Certainly no one with jaborandi and chloral and cascara sagrada and duboisia and grindelia robusta and nitrite of amyl and quebracho and Jamaica dogwood and a number of other remedies in view, will argue that his hope has been without foundation in the past few years at least. On the other hand, the teachers of medicine and those who write text-books are, as a rule, and we say it not disrespectfully, a somewhat self-opinionated set, not holding the opinions of those who are not engaged in the more scientific and exact divisions of medicine in very high esteem, and not prone to be much influenced by them. They are, as a rule, also, little other than theorists, depending for that for which the practitioner works, viz., a livelihood, on the fees from their classes and the income from the sale of their books. The writers of our text-books and the teachers in our leading schools, moreover, too seldom write and teach from actual experience at the bedside. Their time is too much occupied, in this country, at least, with that whereby they live to permit of original investigation, and it takes less time and is much easier to theorize than to verify these theorizations by the touchstone of actual experience. The text-books by American authors excel those of any other country in the really practical, but they are still very defective in this regard, being replete with dogmatic and authoritative utterances which experience too frequently fails to justify. The writers of our text-books on practice do inestimable service for the advance of medicine, but they do wrong in not calling more largely on the experiences of those whose opportunities are much more ample than theirs to aid them in adding to the completeness of the keystone of the arch, to-wit, therapeutics. Several admirable books have of late years been given from the press in which this plan has been adopted, and we venture the opinion that the success with which they have met will stimulate the production of more on the same plan. When this plan is more generally adopted, we are of the opinion that the subject of new remedies will receive more respectful and thorough consideration from those whose position as writers gives them increased influence in the medical world.

A notable instance of the glaring mistakes which mere professors in our medical schools (that is, those whose teaching is not based on experience) is discoverable in a recent address by Robert T. Edes, Professor of Materia Medica in Harvard University. In referring to the approaching decennial revision of our Pharmacopœia, he says in the first place: "In fact the pharmacopœia consists largely of preparations which might be considered, so far as their therapeutic action is concerned, duplicates, and many of the professed additions, although new, botanically speaking, are not different enough in a chemical way to prevent their being placed in well established classes." The fallacy of fixing the therapeutic value or position of a drug through a chemical analysis of it needs not to be pointed out to him whose experience qualifies him to speak of the merits of a drug in disease.

Again this professor, of Harvard, says: "The three solanaceæ—belladonna, hyoscyamus and stramonium—might be practically represented by the

alkaloid atropia, while even the new alkaloid, duboisia, resembles it so closely in its mode of action, though with somewhat increased intensity, that it can hardly be looked upon as an important addition to our armamentarium. As regards the multiplication of *preparations*, it is a matter chiefly of convenience in prescribing. If one has in his pocket one vial of morphia and another of sulphate of atropia, he has all that is essential in thirty-two officinal preparations."

Our contemporary, New Remedies, so admirably shows up the utter recklessness of this assertion that we cannot do better than to quote from it:

"Let us now see what the preparations are which he would have us condense into two pocket vials, one containing a single alkaloid of opium, and the other one of the most potent remedies of our pharmacopœia, in an undiluted form:

Vinegar of opium, camphorated tincture of opium, pill of opium, compound soap pill, Dover's powder, suppository of morphia, suppository of opium, suppository of lead and opium, tincture of opium, acetated tincture of opium, deodorated tincture of opium, troche of liquorice and opium, troche of morphia and ipecac, wine of opium, morphia, acetate of morphia, muriate of morphia, sulphate of morphia.

Alcoholic extract of belladonna, atropia, sulphate of atropia, belladonna plaster, suppository of belladonna, tincture of belladonna, ointment of belladonna.

Extract of hyoscyamus, alcoholic extract of hyoscyamus, fluid extract of hyoscyamus, tincture of hyoscyamus.

Extract of stramonium leaves, extract of stramonium seeds, tincture of stramonium, ointment of stramonium.

This list includes one preparation more than Dr. Edes' total. Now we shall be pleased to have him indicate what one of them can be dispensed with that would not at once be made, under some other name perhaps, by the manufacturing pharmacists of whom Dr. Edes professes such a poor opinion.

The object of the pharmacopœia is to offer definite and carefully considered standards and processes for all drugs and Galenical preparations, which are likely to be employed in the practice of physicians; and just so far as it fails to meet this demand does it encourage manufacturing pharmacists to make and sell preparations peculiar to themselves. The fact of the matter is, that most physicians, like Dr. Edes, ignore the fact that pharmacopœial revision can only be effective when they co-operate with pharmacists in agreeing upon such standards; and, therefore, pharmacopœial revision has been left to a few who have become more noted for an obstinate adherence to by-gone customs than for an appreciation of present needs.

We venture to say, also, that *professors* of materia medica and therapeutics are far more common than *teachers* of these branches, and that much of the present lack of knowledge among the younger physicians of the properties of remedies and the nature of Galenical preparations is more largely due to the shortcomings of the former class than to the labors of manufacturing pharmacists.

When a person holding Dr. Edes' position offers us such opinions as are contained in his paper upon the relative value of the solanaceæ; the culpability of manufacturing pharmacists; the qualifications of medical editors; the merits of the Polk-Percy controversy, and the requirements of a pharmacopœia, he must excuse our presumption if we express an opinion that he *professes* more intelligence than he possesses."

Dangers of a Little Knowledge.

"A LITTLE knowledge," said the wise man, "is a dangerous thing." With all the deference due the originator of this time-honored saw, we are nevertheless constrained to dispute its strict correctness. No one will argue that there is anything inherently dangerous in knowledge, but to admit the truth of the unqualified proverb would draw one to the monstrous conclusion that the greater the store of knowledge possessed by any individual, the more dangerous would that individual be to society; for if a little knowledge is dangerous, it follows without the saying that much knowledge is more dangerous. Modify the saying, and have it read, "a little knowledge is a dangerous thing in dangerous hands, or rather heads," and we give it our full assent. The person who is capable of acquiring only a little knowledge may be a dangerous man, not, however, because of the knowledge he possesses, but because the lack of ability to acquire more knowledge is usually associated with those lower qualities of mind which allow the man to pervert what he does know to the injury of another. The man of much knowledge, the broad-minded, cultured man, stoops to nothing mean. He lives in an atmosphere which he whose knowledge, and whose ability to acquire knowledge is limited, never breathed, and can never know the delights of. But it was not our intention to moralize. We desired merely to call attention to two recent attacks on reputable houses by a person who has manifestly a limited amount of knowledge in a certain direction.

In the April number of the Medical and Surgical Reporter, a Dr. J. R. Black, of Newark, Ohio, made an attack on the firm of Parke, Davis & Co., charging them with placing on the market a preparation of wahoo (euonymus), which was very much inferior to that prepared by a rival house, whose preparations he very much extolled, alleging, as a cause of this inferiority, that Parke, Davis & Co.'s preparation was from the bark of the tree, while that of the other firm was from the root. Gentlemen may honestly differ on the question of the comparative value of different manufactures of the same article, but no gentleman would seek to injure one house at the expense of another, without being fortified with the proofs of his assertion. Dr. Black had no proof of his assertion on this point, for the simple reason that his assertion was a pure fabrication, Parke, Davis & Co., never having had, acccording to their published statement, a particle of the bark of the wahoo tree in their laboratory. The Medical and Surgical Reporter in the issue following that in which Dr. Black's article appeared promptly rectified the misstatement.

Dr. Black's article appeared in the April number of the Reporter. In December the Medical Summary reproduced the article. That an article of so much animus should have been copied eight months

after its first appearance, looked on the face of the thing as if it had been done from sinister motives. The Medical Summary in its February number makes a full explanation of the manner in which the article came to be copied, and the explanation reflects very indifferent credit on either Dr. Black or the firm in whose interest the article was written. Here is the explanation:

"We suffered ourselves in our December number to be led into the commission of an act which we were subsequently convinced was one of injustice, and we now desire to make reparation. The act consisted in the publication of an excerpt from the Medical and Surgical Reporter, of April 19th, of an article on euonymus, by J. R. Black, M. D., of Newark, Ohio. It is needless for us to say that the excerpt was made by request. The length of time intervening between the date of the journal from which the article was taken and the time of its appearance in the Summary, should have excited our suspicion of ulterior if not sinister design on the part of the party at whose request the article was inserted. In the hurry of practice, however, the wide discrepancy between the dates did not occur to us; and in fact the copy was handed to the printer without having passed under our supervision, we relying on the assurance which we exacted that there was nothing in it which would work an injury or be an injustice to any one.

In this article a comparison is made between the fluid extract of euonymus manufactured by Messrs. Parke, Davis & Co., and that manufactured by a rival manufacturer. The discrimination against the former firm is one which, considering its reputation with the profession, should never have been allowed in a medical journal without having first verified its correctness. Our contemporary the Medical and Surgical Reporter itself, after giving space to Dr. Black's paper, in the number following editorially corrects the unjust statement regarding the preparation manufactured by Messrs. Parke, Davis & Co. Dr. Black asserts that the fluid extract of euonymus manufactured by this firm is made of the bark of the tree, while that made by the firm in whose favor he discriminates, is made of the bark of the root. We of course do not know whence Dr. Black derived the data for his assertion. This much, however, is certain, that his data are false. We are assured that Messrs. Parke, Davis & Co., never had an ounce of the bark of the tree in their laboratory, and certainly the fluid extract of euonymus made by that firm, which we have employed, has already proved itself as active as that made by any other firm of manufacturing pharmacists.

We do not wish to deny Dr. Black's assertion, regarding the comparative effects he obtained from the preparations he employed; but this much we do say, that if he found that supposed to be made by Parke, Davis & Co., of inferior quality, he either employed a specimen deteriorated by age, or one out of a bottle bearing merely the label of the house but not the house's make.

Parke, Davis & Co., have acquired a reputation for integrity and for the purity and strength of their goods which is in itself sufficient to meet all such charges as are implied in Dr. Black's article; and we take pleasure in reiterating, in conclusion, that had the article not escaped our scrutiny, it would not have appeared."

In the January 24th number of the Cincinnati Lancet and Clinic this same Dr. Black makes another essay, and pointedly attacks two of our leading firms of manufacturing pharmacists, Messrs. Powers & Weightman and Parke, Davis & Co. These firms do not, it is true, require any defence from such attacks, but we cannot refrain from remarking on the course of reputable journals in allowing their columns to be prostituted to such uses.

Dr. Black's article under the caption of "French and American Quinine," is little more than a very thinly disguised attack on the houses referred to, and the journal which lends its pages to such becomes a *particeps criminis*.

The Monthly Review of Medicine and Pharmacy very fitly shows up Dr. Black's little knowledge (a dangerous thing in this instance), of the subject he writes of. It says:

"To quote from the article in question, the writer says: "Not having the time, if I had the ability, to examine into the accuracy of this doubt chemically, I put some of the quinine mentioned under a microscope. The fine, needle-like crystals of quinine were more or less mixed with an amorphous powder, which I surmised (upon what grounds could such a surmise be based? certainly not from such superficial examination of an article which might just as easily be anhydrous quinine sulphate as the sulphate of either of the other alkaloids—Ed.) was one of the other alkaloids of bark." After a few subsequent reflections of a similar nature, the writer states that for the past eight months he has only used the French brand of Armet De Lisle & Co., and from it received the desired effect.

The sweeping condemnation of this brand of quinine upon such slight foundation, we consider not only unjust to the makers, who are known throughout the world for their commercial honesty and enterprise, as well as the purity of their product, but also an error of fact of a grave kind. When medical writers attack the products of well-known firms, they should be absolutely certain of the *facts*, since almost irreparable injury may thus with a stroke of the pen be inflicted on the innocent makers of an article in question, and a doubt be cast on the purity of an article which no amount of denial even by the originator of the slander can remove. In the article in question, the glaring inaccuracy of the test given by the writer must make anyone gravely question the contents of the entire article, for he says: Take one gramme of eighteen grains (one gramme is 15.434 grains—Ed.) and put it in a small test tube, adding four grammes or drachm of sulphuric ether (four grammes would be about seventy-eight minims of ether—Ed.) and two grammes or thirty-six grains of (two grammes = 30.868 grains—Ed.) water of ammonia, agitate the whole strongly. The liquor obtained should be perfectly transparent; quinine and cinchonine remain in an insoluble state." Here we think there must be a misprint, for the writer should certainly desire the solution of the quinine at least. We have not words to comment on the utter unreliability of this test as given above, nor upon the writer of an article so obviously unfair and prejudiced, but we think we find a few sentences farther in the article alluded to, which is possibly the key to all this injustice, for to quote farther and to the point, the writer says: "By the way, did you note, Messrs. Editors, how quickly the practice of medicine makes some men self-satisfied egotists? I do not say all physicians young and old become thus infected, but if there is a latent tendency to vanity, the practice of medicine *of all occupations* will be sure to develope it to an amazing and really to a mirth-provoking extent." Exactly! Exactly!! that is just what is the matter we strongly suspect."

After all of the above we are strengthened in our conviction that Dr. Black knows but little of the subject on which he has written, and that coincident with his limited knowledge he lacks that quality which would keep him from becoming a pliable instrument in the hands of unscrupulous parties.

Sanitary Convention.

THE second of the State Sanitary Conventions, conducted under the auspices of the State Board of Health, met at Grand Rapids on the 17th ult. Like that which was held in this city in January, the convention was a success in all the particulars which constitutes a gathering of this kind a success. The attendance of those who from their influence and special training are qualified to carry out the improvements in sanitary matters suggested, was good, and the papers were, as a rule, of a superior order of excellence. We are of the opinion that the future of such gatherings as this will show that our State Board of Health will have grounds for self-gratulation in having instituted them in this country. Their influence on the practical outcome of the great question of State medicine must prove to be very important. The triumphs of medicine in the future will consist in preventing as well as in curing disease, and when the people have once been aroused to the importance of sanitary science, as these conventions will have a tendency to arouse them, we believe they will be brought to recognize in some substantial manner the efforts of the profession in their behalf. It is too much to expect physicians to devote themselves without com-

pensation to a work whose very object is to deprive them of their means of livelihood. The gratuitous service of the medical profession in sanitary matters is one of the anomalies of the times. The clergyman devotes himself to the eradication of the moral perversity which once removed (imagining such a thing to be possible), would place him in the position of Othello, with his occupation gone, but the people to whose spiritual wants he ministers reward him for his labors, in so far as a comfortable salary is a reward. When the people come to realize the fact that it is fully as meritorious a deed, although not quite so heroic, to prevent a man from falling into the current, as to save him when once in, from going over the falls, they will lay aside of their substance to reward the hygienist and the sanitarian.

The papers deserving of special mention read before the Grand Rapids Convention, were those by Dr. Henry B. Baker, Secretary of the State Board of Health, on "General Sanitation;" by Rev. J. Morgan Smith, on "The Duties of the Christian in Respect to the Laws of Health;" by John K. Allen, Clerk of the State Board of Health on "Air Moistening;" by the Rev. J. F. Conover, of Kalamazoo, on "The Relation of the Clergy to Sanitary Reform;" by Dr. E. H. Van Deusen, of Kalamazoo, on the "Relation of Drainage to Health;" by Mrs. S. H. Ballard, of Grand Rapids, on "Cooking;" by E. A. Strong, of Grand Rapids, on "The Health of the Young as Affected by the School and School Architecture," and by Dr. R. C. Kedzie on "Some Conditions of Inflammability."

We cannot, because of our limited space, give even a synopsis of the papers, but hope they may be published for distribution among the public.

Jamaica Dogwood—Piscidia Erythrina.

THE relief of pain is one of the great objects of medicine. The prevalence of pain seems to be increasing with the increasing refinement which characterizes these times. Neuralgia is probably vastly more prevalent than it was within the memory of even comparatively young practitioners. The disturbing conditions of modern life, operating on the delicate nervous organization, which is itself the outcome of these conditions, have created a great demand for anodynes and narcotics. The control of medicines of this class has largely passed out of the hands of physicians, patients taking on themselves the responsibility, not only of taking the drugs, but of fixing for themselves the dose. Opium and its salts have been the principal agents of this class, and the natural consequence of this indiscriminate use may be seen in the alarming prevalence of the opium habit, a habit, the evils of which are so painfully familiar to every practitioner. This habit, taken in connection with the unpleasant after effects of the drug, even when intelligently and scientifically administered, make it very desirable that some substitute for opium be brought forward. Jamaica dogwood, long on the secondary list of the dispensatory, but until recently never submitted to the careful clinical tests necessary to properly fix its place, is now presented as such a substitute in a large class of cases. It is, of course, at this early date, too much to claim for it properties which commend opium. It has this in its favor, however, that its use is followed by none of the systemic effects which make opium objectionable, viz., constipation and that string of evils comprehended in the phrase, "locking up the secretions," and that its use, as far as we know, is not liable to be followed by the uncontrollable passion for its abuse. The testimony in favor of this drug has already accumulated to a large mass, the very reliable nature of the great proportion of which leaves no doubt that the article has sufficient merit in it to warrant those who desire such a substitute for opium as we have indicated, in submitting it at least to a fair and impartial trial.

Michigan Medical College.

THIS institution was formally opened on the 2d inst. A large and intelligent audience convened in the hall of the college building, corner of Gratiot avenue, St. Antoine and Catherine streets. The chair was occupied by Hon. Sidney D. Miller, President of the Board of Trustees, who briefly recited the history of the college thus far, explaining its legal status and its authority to confer the degree of Doctor of Medicine. Professor Henry F. Lyster, President of the Faculty was then introduced, who gave an address of thirty-five minutes, in which he delineated the course that would be pursued by the Faculty, and claimed that its matriculation examination was the highest of any medical institution in this country, and that it would be fully adhered to, and on this basis it asked for the support of all who favored a good foundation upon which to erect the superstructure. The address was received with applause. Hon. Wm. C. Maybury, Professor of Medical Jurisprudence, made a few remarks, and speaking of the medical profession being overcrowded, said there was "always room at the top." Judge J. Logan Chipman congratulated the Board of Trustees and Faculty that "in spite of the tendency to cheapen the course they had insisted upon a high standard at the outset, and bade them God speed." Mayor Thompson was in favor of a good literary education as the basis of a professional one, and claimed that education would always be even in the end. Dr. P. Klein said adhere to the curriculum laid down, and success must follow. Hon. Levi L. Barbour, Gen. L. S. Trowbridge and Dr. Brodie, also made remarks.

This new candidate for public favor starts off with twenty matriculants for its summer course, all of whom passed a highly creditable preliminary examination.

Detroit Medical College.

THE twelfth annual commencement of this institution was held in the Detroit Opera House on the 3d inst. The Board of Trustees, Faculty, and invited guests occupied the stage, and the body of the house was filled to overflowing. Twenty-seven young men received the degree of Doctor of Medicine, with their diplomas, at the hands of Prof. McGraw, President of the Faculty. Gen. S. M. Cutcheon addessed them, giving some good practical advice, which if heeded will be of great benefit to them. He was followed by Prof. S. P. Duffield, who gave them advice how to choose their counsellors, and concluded with an elegant peroration.

The exercises closed with a social reception given by the Faculty at Abstract Hall, at which all, Trustees, Faculty. graduates and invited guests, seemed to enjoy themselves, passing a pleasant social evening. The music was excellent and was under the direction of Prof. P. Speil. The refreshments were served by Andrew Hair, Esq., in his usual felicitous manner.

Duboisia.

THE position which duboisia occupies in therapeutics has for some time been fixed by ophthalmologists, but we apprehend it is not so thoroughly in use by general practitioners as that position would not only justify but demand. Certainly in affections of the eye requiring in their treatment the dilatation of the pupil and paralysis of the muscles of accommodation, duboisia is more efficacious than belladonna or its salt atropia. This fact alone, aside from the fact that it produces none of the disagreeable effects, dryness of the throat, irritation of the conjunctiva, etc., which attend the use of belladonna, demand that it should replace the latter in eye practice. Ophthalmologists are a progressive class of men, as specialists usually are, and the fact that they have unanimously endorsed duboisia is a sufficient reason why the general practitioner who is called upon to treat eye diseases, and who attends from necessity frequently, rather than from choice, should give duboisia the place now occupied by atropia.

Manaca.

THE memory of him who invents or discovers a remedy for rheumatism will be enshrined in one of the top niches in the temple of fame. Whether he who brought forth manacá is entitled to this high distinction, will for some time remain an open question. This much, however, seems to be certain, that it is an article which is entitled to much more consideration than the great majority of those which are enumerated under the head of anti-rheumatics. The reports which come to us as following its use in its habitat would seem to be a sufficient justification for the physicians of this country to accord it a trial. This is all its introducers ask for it, and this much they think the success reported justifies them in asking.

An Editorial Visit.

WE received a pleasant call from Drs. Chapman and Thorn, of the Toledo Medical and Surgical Journal, the other day. They looked rather jaded upon their arrival, but a day and a night in the clear bright air of the City of the Straits so invigorated them that they could not be induced to stay longer, and as they had picked up an idea they hied them home for the benefit of the Toledo Medical and Surgical Journal and their colleagues generally.

Notes and Comments.

Praise from Sir Hubert.

The Southern Clinic says: "THE THERAPEUTIC GAZETTE is the title of a large, double column monthly journal, which is published at Detroit, Michigan, to take the place of New Preparations. We would distinctly announce that there has been no diseased condition discovered which has necessitated New Preparations leaving the field, but, on the contrary, its success has been unparalleled, and it has simply outgrown itself. The editor and proprietor, therefore, have thought it advisable to give it a new dress, better title, and a still more extended circulation. Send $1.00 to Bro. Wm. Brodie, M. D., Box 641, Detroit, Michigan, and receive the only journal in America devoted exclusively to therapeutics."

The Medical Herald of Louisville, in its February number says: "New Preparations will be known hereafter as THE THERAPEUTIC GAZETTE. Brother Brodie has displayed rare talent in journalism, he has been successful beyond the average, and richly merits the substantial encouragement he has received. Brodie's editorials are not long, but they are pointed and pithy."

That spicy weekly, the Louisville Medical News, in its issue of February 14th, says of THE THERAPEUTIC GAZETTE: "This journal is greatly improved by its new dress. With Brodie as editor, and Davis as publisher, the excellence and success of the GAZETTE are assured."

The Southern Practitioner, of Nashville, Tenn., for February says: "New Preparations 'steps down and out,' to give place to THE THERAPEUTIC GAZETTE. The amiable Brodie still remaining *redacteur en chef*, and sovereign of the 'sanctum.' Long may it wave!"

The St. Louis Clinical Record says: "THE THERAPEUTIC GAZETTE, a monthly devoted to therapeutics and the introduction of new therapeutic agents, succeeds New Preparations. It presents a fine appearance and is a marvel of cheapness—$1.00 per annum. Dr. Wm. Brodie, a veteran in medical journalism, is the editor."

The King of the Belgians' Prize.

By a decree of December 14, 1874, His Majesty the King of the Belgians offered an annual prize of 25,000 francs for the encouragement of intellectual effort.

The prize for the year 1881, for which authors of all nations may compete, will be awarded to the best work on the means of improving ports established on low and sandy coasts like those of Belgium.

Foreigners desiring to compete for this prize will be required to send their works, either printed or in manuscript, to the Minister of the Interior at Brussels, before the 1st day of January, 1881.

A manuscript work obtaining the prize must be published in the course of the year following that in which the prize shall have been awarded.

The award will be made by a jury appointed by His Majesty the King of the Belgians; this jury will be composed of seven members, three of whom are to be Belgians and four foreigners of different nationalities.

Erratum.

Dr. I. H. Stearns calls attention to an error in his article on the "Philosophy of Yellow Fever," as printed in the GAZETTE of January. It consists in the use of the word "emmenagogue," for which please read "chologogue."

Book Reviews and Notices.

The Hypodermic Injection of Morphia—its History, Advantages and Dangers (based on the experience of 360 physicians). By H. H. Kane, M. D. New York: Chas. L. Birmingham, Medical Publisher. 1880. From the Publisher.

The author starts out in his preface with the announcement that "a physician of the present day without a hypodermic syringe in his pocket or desk at home would be looked upon as would have been a physician fifty years ago did he not own and use a lancet," and further, "that no therapeutic discovery that has been so great a blessing and so great a curse as the hypodermic injection of morphia." After examining the reports received from his correspondents, he says: "Finally, let it be distinctly understood that I consider the hypodermic use of morphia a very decided therapeutic advance, and of incalculable benefit in allaying pain and curing disease in cases where other treatment utterly fails. In calling attention to the dangers sometimes attending the use of the drug in this way, I do it, not from a one-sided view of the question, not with a desire to condemn it; simply to point out what may occur, endeavor to show how best to avoid it, and, if possible, to restrict its use to those cases in which it is proper.

Our author is evidently a hypodermic man, and believes in a syringe and morphia—with atropia, strychnia, citrate of caffeine and carbonate of ammonia to be carried along as antidotes. We may be rated as old fogy, but since the syringe has come into vogue we believe it has caused more deaths and made more opium inebriates than morphia used any other way could possibly have attained in twice the time. Were we a law maker we would make it a penal offence to inject morphia into the cellular tissue unless under the advice of a consultation.

In the first place, it is a non-natural way to introduce remedial agents into the system. 2d. It is dangerous, because there is no way to antidote its action except by the use of the same instrument with other almost equally dangerous agents. 3d. It deteriorates the physician into a mere empiric. The patient has pain—give him an injection; the pain is allayed, and the doctor is deceived as to the result, whilst serious diseases may be going on undetected, in other words, masked. 4th. An overdose given hypodermically produces death so quickly that the cause cannot be determined by an autopsy, and the coroner's inquest usually finds "spasm of the heart" as the verdict.

"Morphia Hypodermically" is a book that should be read, as it contains much good advice to those who use the syringe, and which, heeded, may save many valuable lives and some professional disgrace.

The Therapeutics of Gynæcology and Obstetrics. Comprising the Medical, Dietetic and Hygienic Treatment of Diseases of Women, as set forth by Distinguished Contemporary Specialists. Edited by William B. Atkinson, A. M., M. D., author of "Hints on the Obstetric Practice," Lecturer on Diseases of Children, at the Jefferson Medical College, etc., etc.; 1 vol., 8vo., pp. 370. Philadelphia: D. G. Brinton, 115 South Seventh St., 1880. From the Publisher. Price: cloth, $3.00, sheep, $3.50.

This work is the third of the Modern "Therapeutic Systems." The first, Modern Medical Therapeutics, and second, Modern Surgical Therapeutics, were edited by George H. Napheys, A. M., M. D., who having died before the series was completed, Dr. Atkinson was selected to edit the third, or the Therapeutics of Gynæcology and Obstetrics.

"The aim of this series is to present the most modern and approved plans of treating the diseases considered, as set forth by the most eminent authorities and specialists in this country and Europe. The word 'therapeutics' is taken in its widest sense, including all means of combating disease." The "Resumés of Remedies added to each disease are intended to set forth, in alphabetical order, all the agents which have been recommended in its treatment by good recent authorities."

The work is divided into two parts. Part I. *Gynæcological Therapeutics.* Chap. 1.—Diseases of the Ovaries; Disorders of Menstruation, and General Diseases. Chap. 2.—Diseases of the Uterus and its Annexes. Chap. 3.—Diseases of the Vagina, Urethra and Bladder. Part II.—*Obstetrical Therapeutics.* Chap. 1.—The Disorders of Pregnancy. Chap. 2.—Complications, Disorders and Sequelæ of Parturition. Chap. 3.—Diseases of the Mammary Glands and of Lactation.

Each chapter is prefaced with a "Synopsis of Diagnostic Points," "setting forth in brief but clear form the distinctive signs and symptoms between the diseases considered in the chapter. This permits the etiological plans of treatment to be presented more distinctly, and may also serve as a reminder in cases of puzzling similarity."

The work is made up of the experience of our best writers and practitioners, and includes the treatment recommended and used by them. It is concise and intensely practical, and hence we cordially commend it both to the profession and to the student.

The Hair: Its Growth, Care, Diseases and Treatment. By C. Henri Leonard, M. A., M. D., Professor of Medical and Surgical Diseases of Women, and Clinical Gynæcology in the Michigan College of Medicine; Member of the American Medical Association; of the Wayne County Medical Society, etc., etc.

"We loved that time the best,
Before the hair was turning grey."

Illustrated by 116 engravings. Detroit: C. Henri Leonard, Medical Book Publisher, 1880.

The preface informs us that this work has engaged its author's attention for the past six years, and is intended as an introduction to a second larger and more scientific work, in which he purposes to show the possible classification of animals from the difference in the microscopical structure of their hair-shafts. The work is intended to be of as much value to the laity as to the medical profession. It is divided into twenty-eight chapters; five are given to the discussion of the chemistry, anatomy and physiology of the hair, its follicles, root and shaft; seven to the color, hygienic treatment, excessive growth, changes in color and baldness. One to artificial coloring; twelve to the various diseases affecting the hair and treatment thereof; one to the dressing of the hair; one to the modes of the ancients; and one to the beard.

We confess we are agreeably surprised at the book, for although aware of the ability of the author, we had grave doubts of the possibility of making a success of a work of this nature. It is written in an easy and agreeable style; neither too little nor too much said upon its different

subjects, at the same time sufficient to give all necessary information. It is an interesting and useful book for everybody to read, and unless too hypercritical, much valuable knowledge can be obtained.

It is an octavo of 312 pages, with a full index added. Printed on tinted paper and bound handsomely in cloth; price $2.00. For sale by E. B. Smith & Co., Detroit, Mich.

First Annual Report of the State Board of Health of the State of Connecticut, for the Fiscal Year ending November 31st, 1878. Printed by order of the Legislature. Hartford, Conn. Compliments of C. W. Chamberlain, Secretary of the Board.

We are pleased to see that the Nutmeg State has organized a State Board of Health, and that our friend Dr. Chamberlain has been made its Secretary. Thus one by one our States fall into line in medicine as in politics. How to prevent disease and prolong life, has become the problem of the age. For years, we may say ages, this duty has devolved upon the medical profession, and poor has been the remuneration they have received for their efforts. Now that laymen have been induced to enter the lists, the profession have been in a measure relieved from this duty. For this we are thankful. The State Board of Health for the State of Connecticut, consists of six members: Dr. J. S. Butler, A. C. Lippett, A. E. Burr, Dr. R. Hubbard, Dr. C. A. Lindsley and Prof. W. H. Brewer; Dr. Butler, of Hartford, is President, and Dr. C. W. Chamberlain, Secretary. Connecticut starts off well, and Michigan extends the hand of brotherhood.

A Protest Against Meddlesome Midwifery. By H. Gibbons, Sr., M. D. Read before the San Francisco County Medical Society. Compliments of the Author.

The doctor makes protest against the use of the forceps in obstetrical practice, for the reason that they are so often used by those who have neither skill or mechanical dexterity to use them even if their judgment discovered the necessity for their use. Commencing practice nearly fifty years ago, when forceps were not much in use, he says, "Had I my professional life to live over again, with my present experience before me, I am free to confess that I should resort to the forceps, say from five to ten times, when I have done so but once."

An experience of thirty years has taught us that the forceps, when used with judgment, and dexteriously applied, bears the same relation to midwifery that anæsthetics do to surgery, and we agree with the writer that it were better to trust to nature alone than to have the forceps used by unskillful hands. We commend the paper for the good sense it contains.

Photographic Illustrations of Skin Diseases, complete in Twelve Parts. By George Henry Fox, A. M., M. D.; 48 Colored Plates taken from Life.

Parts 1, 2, 3 and 4 we have noticed and expressed our opinion on. Parts 5 and 6 are now before us. Part 5 treats of Eczema Infantile, Eczema Papulosum, Eczema Sclorosum, Eczema Postulosum, Eczema Squamosum. Part 6 treats of Eczema Barbæ, Eczema Manum, Eczema E-venis Varicosis, Ulcus Varicosum, Psoriasis Annulatta.

These illustrations maintain the character of the first issue, aud we think no one can take any exception to the explanatory text which precedes each illustration; and for the price no student of skin diseases can get so much information for the money as are given by these illustrations. They are published by E. B. Treat & Co., 805 Broadway, New York city. Each part $2.00 or $24.00 for the set. We cordially commend them to the profession and to the student.

Treasury Department—Marine Hospital Service. Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States, for the Fiscal Years 1878 and 1879. Government Office, Washington, D. C., 1879.

We were in hopes of seeing some recommendation concerning the Marine Hospital in this city. It ought to be either thoroughly cleaned and painted within and without, or else sold out and the patients provided for by contract with some of our city hospitals. The latter plan would, we are sure, be a source of saving to the government, and not derogate from the cure and comfort of the sick sailor.

Transactions of the State Eclectic Medical and Surgical Society of Michigan for 1879. Series IV, Vol. I, have been received.

The pamphlet closes the first volume, and is embellished with a cut of Dr. V. A. Baker, the first President of the Society. The volume contains over 200 pages, and, judging from the number before us, the meetings whose records it contains, have been very pleasurable as well as profitable conventions. The active and honorary membership of the Society numbers sixty-four.

North Carolina Board of Health Sanitary Engineering, Second Edition. By William Cain, C. E.; Member of the North Carolina Board of Health. Raleigh: 1880.

The author takes up the subject (after laying down some general considerations), of drainage, ventilation, water supply and water sewerage. The writer evidently knows what he is writing about, and gives his readers a great amount of information of a truly practical character. The Pine Tree State is making good headway in sanitary matters.

Pamphlets Received.

Malignant Degeneration of a Fibroid Tumor of the Uterus—Large Aneurism in the Substance of the Growth. Drs. Albert N. Blodgett and Clifton E. Wing, Boston, with their compliments.

Rectal Alimentation and the Induction of Abortion for the Relief of the Obstinate Vomiting of Pregnancy. By Wm. Warren Potter, M. D. Batavia, N. Y. Reprint. Compliments of the author.

Malaria and its Effects. By J. W. Younge, M. D. Fort Wayne, Ind. Compliments of the author.

Therapeutic Progress.

The Importance of Heart Stimulants in Many Cases of Disease.—When the life of a human being is placed in imminent peril, the impulse of the human heart is to fly to the rescue and avert the threatened danger; not always, however, is this done with sufficient presence of mind at command to render the best or most intelligent assistance.

The physician, schooled by precept and by practice to coolness and self-possession, may meet and contend with the alarming dangers which threaten the lives of his patients with quiet and commendable composure, fully aware that to become a party to the extravagant excitement, the wild confusion and alarm which frequently take possession of the friends around the sick bed, would unfit him for a calm, intelligent investigation of the pathologi-

cal condition upon which the danger depends, and on a correct knowledge of which, and a correct application of therapeutic agents, the life of his patient depends.

It is my purpose to call attention to some of the diseases and conditions in which the failure of the heart's action calls for the prompt and persistent employment of cardiac stimulants.

In the pernicious malarial fevers, malignant scarlet fever, typhoid fever, cholera, erysipelas, various poisons, particularly the poison from venomous serpents, the secretions become so much depraved, so malignantly putrescent as to poison the blood, the poisoned blood in turn is carried to the brain and poisons that organ, the brain being the great battery that through the nerve tissues supplies the nervous energy to all the involuntary muscles and organs, the heart may, by failing to receive its accustomed stimulus, become so paralyzed in its action as to fail to supply the system with the necessary amount of blood, and inevitable death, unless prompt and efficient remedies be applied, will be the consequence. Without entering into any discussion of the different modes in which death may approach in disease, the failure of the heart's action may be classed among the most important.

Dr. Watson has happily said that life rests upon a tripod, whose three vital supports are, the heart, the brain and the lungs. The mode of death may begin at any one of these three vital points.

Dr. Aitken in speaking of death by anæmia says, "another mode of death may be more immediately connected with the heart itself, and be independent of the supply of blood.

"In other words, the stimulus of blood may be sufficient, but the contractile powers of the organ may fail; that many diseases which are due to morbid poison in the blood tend to prove fatal by this mode of dying."

The approaching danger in this condition, the physician may readily detect by the pulse becoming wiry, feeble and frequent, and if remedies be not applied there will be an ultimate failure to perceive pulsation of the radial artery at the wrist.

Cardiac stimulants, properly administered, excite and stimulate the cerebro-spinal system of nerves and through these other parts of the system, stimulate the heart to increased action, renders the pulse full, gives additional energy to the relaxed muscles and exaltation and energy to the mental faculties, promotes digestion, absorption, assimilation and consequently sanguification by causing a more thorough appropriation of food to nutrition; the saving thus affected more than counterbalancing the waste of tissues implied by increased vital action.

The relation of a case which occurred in my practice will convey to the reader a more satisfactory idea of the beneficial results to be obtained from the judicious use of cardiac stimulants, than would a greater amount of space taken up in descriptive theorizing on the subject.

H. B., æt. 10 years, was taken with scarlatina with moderately high fever, and the appearance of a profuse bright scarlet eruption on the second day covering the entire body, with considerable soreness of the throat and deep redness of the fauces.

The usual remedies were prescribed and the disease appeared to be running a favorable course until the night of the fourth day, when the patient became exceedingly restless, the eruption commenced to assume a dark hue, and the disease passed almost by imperceptible gradation into a quite malignant form, septic and typhoid in character.

The temperature was high, the secretions had become vitiated and tenacious, a black sordes had collected about the mouth and teeth, incoherent raving was succeeded by stupor and by the afternoon of the fifth day the pulse was wiry, feeble and frequent, the respiration short, quick and oppressed, the eyes were turned upward and the urine suppressed, and the indications were strong that death would occur during the night following.

The delirium and stupor occurring in such rapid succession showed that vitiated secretions had poisoned the blood and this had poisoned the brain; the failing and feeble pulse indicated that there was a manifest failure of the heart's action, and a combination of such unfavorable symptoms were present that death appeared inevitable unless active interference should result in marked improvement.

The prescription for the night was a teaspoonful of whisky in a tablespoonful of milk every hour, with carbonate of ammonia and quinine at short intervals. The patient fortunately was in the hands of nurses who had no preconceived opinions, or ready excuses for substituting their own judgment for that of the physician's, but the medicines were administered with the strictest punctuality, in accordance with the prescription; the result exceeded the most sanguine expectations.

At 9 o'clock on the morning of the sixth day the little patient had returned to consciousness, the circulation was increased in fullness and strength, urine was passed, a life was saved.

One week's continuance of the stimulants and the case was bridged over the dangerous period of the disease and convalescence fully set in.

This patient was then attacked with a very common sequel of scarlet fever, extensive inflammation of parotid and submaxillary glands, and large abscesses formed on each side of the neck and greatly retarded his recovery.

The physician should carefully note the pathology of cases where a specific disease has so poisoned the secretions and blood as to cause the important train of symptoms before described.

His best energies should be directed to the discovery and employment of the most efficient antidotes to neutralize, destroy or render harmless these specific poisons.

Taking first animal life and tracing it down to the lowest forms of animalcule life, it is known that strychnine is peculiarly destructive to canine life, arsenic in its certain destruction of rodents has acquired the name of ratsbane, cobalt destroys flies, sulphur will kill the acarus scabiei, mercury speedily proves fatal to the pediculus capitis and the several species of this pestiferous family. Santonine destroys ascaris lumbricoides; chlorine destroys the germs of putrifaction; quinine may be classed as a specific in destroying the malarial disease germs.

Sulphite of soda and carbolic acid have a marked eliminative and destructive tendency on the germs that produce small-pox.

Alcohol destroys the animalcule life that produces milk sickness.

Cantharides readily destroys the animalcule that produces ringworm.

Tinct. ferri chloride, painted over an erysipelatous surface, destroys the germs that produce superficial erysipelas.

Whiskey is the antidote for the poison from snake bite. Preparations of lime arrest or destroy the germs of fermentation. Many more could be referred to, but space will not admit. These may all be classed as either specific or chemical actions.

If we should go into the detail of medicines that are known to antagonize and destroy the poisonous effects of other medicines upon the human organism, the list would be almost inexhaustible.

Each specific epidemic or contagious disease necessarily implies a peculiar germ poison, that in all ages, so far as we have any history, have perpetuated and unerringly maintained and reproduced their characteristic train of symptoms, that the peculiar poison alone produces in each individual disease.

While the therapeutist should, by every available means of investigation, select proper and efficient antidotes for every poison engendered in the system by septic disease or introduced otherwise, it is an established fact, and one worthy to be impressed on the minds of practitioners, that in that class of septic disease in which the poison has a depressing influence upon the brain and heart, cardiac stimulants are of inestimable value.—*J. W. Compton, M. D., in Indiana Medical Reporter.*

Benzoate of Soda in Diphtheria.—Dr. Letzerich has successfully treated, with benzoate of soda, twenty-seven cases of diphtheria which came under his care during an epidemic of the disease in Berlin. Of these cases eight were severe, accompanied by high fever, delirium, retention of the urine and fæces, existing often before the extensive local affection had made its appearance. In the blood were found numerous bacteria and plasma corpuscles from which by cultivation in veal broth, very large colonies of micrococci became developed. The dose of sodium benzoate for children and adults is to be regulated by the weight of the body. The formula for infants under one year old is:

℞ Sodæ benzoat. pur. ʒ j.
Aquæ distillat.,
Aquæ menth. ppt. ää ʒ j.
Syrup cort. aurant. ʒ ij.
M. Sig. Half a teaspoonful every hour.

The dose for children between one and three years of age is given as 7-8 grammes (two drachms) dissolved in three and a half ounces of the vehicle, the whole amount being given in the course of the day, in half to one tablespoonful doses. For children between three and seven years of age, 8-10 grammes (2-2½ drachms), given in the same way. Those over seven years old take 10-15 grammes (2½-4 drachms), and for adults the dose is 15-25 grammes (4-6 drachms) daily in 4½ ounces of the vehicle. An unpleasant after effect has never been observed even in young infants. The diphtheritic membrane was treated with benzoate of soda in powder, being sprinkled on or applied through a glass tube or quill. There is no slough formed, and thereby the danger is averted of its acting as a firm covering under which an energetic development and growth of the organisms can take place. The insufflation was made every three hours in severe cases, in the middle forms two or three times daily. With older children a simple solution of the salt (ten to two hundred) was used as a gargle. The author also recommends this remedy in gastric or intestinal catarrh, particularly of infants, and states that at times the results are surprising in these latter cases. He recommends it likewise in mycotic catarrh of the bladder, and firmly believes in the statement of Klebs that it is to be recommended in all diseases which originate by infection.—*The Boston Medical and Surgical Journ.*, from *Berlin Klin. Wosch.*, Feb. 17, 1879.

Singular Result From Damiana.—A Case in Practice.—I wish to report the following case in practice, and ask for information through your journal.

On August 6th, 1870, a Mr. H., 40 years of age, nervo-bilious temperament, applied to me for treatment for what he called loss of sexual life. He was unable to perform the act of coitus. I considered it a case of sexual neurosis, with enlargement of the prostate gland.

Having seen an article on damiana in a copy, I think, of the Medical Tribune, in which the author spoke highly of its efficacy for the relief of impotency, I put my patient on ʒ ss doses of the fluid extract twice daily, and directed him to call from time to time and report progress. He did so, once or twice a week. At the end of three months he he reported himself "as good as new" (his language), but with a discharge from the genitals not unlike gonorrhœa. I thought the damiana must have acted directly upon the prostate gland instead of through the nervous system, and in some manner to cause the prostatitis that existed. I found the course of the urethra along its whole length tender and inflamed. I attributed the tenderness to the mucopurulent discharge from the prostate. I gave the following treatment:

℞ Gelsemii, fl. ext. ʒ ss.
Aquæ, ʒ jv.
M. Sig. A teaspoonful every two hours.

I snceeded in a few days in relieving the patient. *Query.*—Will damiana cause prostatitis?—*Dr. J. H. C., in Medical Tribune.*

Rectal Alimentation by Means of Desiccated Blood.—Dr. F. E. Stewart (*N. Y. Med. Jour.*, vol. i., 1880, p. 11) calls attention to the value of blood as an aliment *per rectum*, and to the convenience of desiccated blood, drawn from healthy animals and made below the temperature of 110° F. A little more than a drachm of the dried article represents a fluid ounce of blood. To dissolve, a drachm should be thrown into a fluid ounce of water and allowed to stand until the albumen becomes perfectly soft, to prevent sticking to stirring-rod or dish. Gentle agitation will then convert it into a perfectly homogenous fluid, closely resembling fresh blood. It is a very difficult matter to dissolve dried blood by pouring water upon it, for it immediately adheres together in lumps, and sticks to everything brought into contact with it.

From four to six drachms of the powder daily, or more, is the dose, which may be given at once, at bedtime, or in divided portions during the day, as circumstances seem to require.

If a greater amount than can be absorbed be injected at once, and decomposition result therefrom, it is advised to wash out the rectum with tepid water before continuing the medication.

INJECTION OF CHLORAL IN AN ERECTILE TUMOR.—Dr. A. Pupi, in Lo Sperimentale, narrates a case of erectile tumor treated by parenchymatous injection of chloral. The tumor was in the naso-palpebral region, and had extended rapidly. After considering the various methods possible for its removal, Dr. Pupi decided to adopt injection of chloral, remembering that it coagulates the blood, is a hæmostatic and cicatrisant. Three injections were made at intervals of a fortnight, into the substance of the tumor. The proportion of chloral was ten per cent. in distilled water. Each injection was immediately followed by swelling, which, however, was not painful, and disappeared in four or five days. The cure was complete, and scarcely any traces of tumor can now be been.—*Medical Press and Circular.*

New Remedies.

UNSUCCESSFUL INHALATIONS: FAILURE OF SODIUM BENZOATE.—The record of failures is always unpleasant; the record of failures where the experiment was inaugurated with exaggerated hopes doubly so. We regret that the treatment of phthisis by inhalations of sodium benzoate turns out to be a complete failure. The question no longer admits of doubt. There lie before us not only the reports of carefully conducted experiments by Dr. Paul Guttmann and Dr. Wenzel, of Berlin,* but also the abstract of a long discussion on the subject at the Berlin Medical Society,† in which several other speakers of authority arrived at the same conclusion as the physicians just named, viz., that the benzoate is useless in phthisis.

Dr. Guttmann's experiments may be taken as a sample of the rest, to avoid useless repetition. He treated thirty-one cases in all—twenty-four men, seven women—of ages ranging from 17 to 56 years. Most of them were in advanced stages, those with hectic fever being especially selected; but some few were the subjects of comparatively slight forms of the disease. The temperatures were taken three times daily. The inhalations were carried out, as Rokitansky prescribed, twice a day, with Siegel's spray and a five per cent. solution of the benzoate; but the quantity inhaled was, except in three cases, less than that used at Innsbruck, from five to ten grammes of the salt, instead of fifty, being inhaled per diem. Fifteen of the thirty-one patients inhaled for three weeks, one for twenty-two days, six for from fourteen to nineteen days, the remaining nine for three to twelve days. Four of the latter, who were unable to tolerate the inhalation, were treated with twenty grammes of benzoate daily by the mouth. The results may be summed up as follows:—Nine of the thirty-one patients died (seven men and two women), and two were discharged at their own request. No constant effect on the fever could be detected. The patients lost or gained in weight according to the degree of fever present, just as if they were under ordinary treatment. The local symptoms, as proved by auscultation and percussion, remained unaltered or became worse; night-sweats continued as before. In one respect only was any apparent improvement caused by the inhalation; the patients seemed to cough less for some hours after it. Dr. Guttmann, however, ascribes this not to a total diminution of the amount of expectoration got rid of by the cough, but to the fact that they coughed more and expectorated more during the inhalation than at other times, so that the phlegm took longer to reaccumulate. Dr. Guttmann considers that not a single symptom of phthisis in his patients was improved by the benzoate inhalations. On the other hand, several complained of nausea and vomiting, and two had hæmoptysis after it. Dr. Wenzel, too (*loc. cit.*), found that it caused nausea and sickness in some of his patients; and Dr. Waldenburg and Dr. Fritsche made the same complaint in the discussion at the Berlin Medical Society, one of Dr. Fritsche's patients, who not only had lung disease, but also an ulcer on the ventricular bands of the larynx, suffered from diarrhœa, strangury, vomiting, continual cough, and conjunctivitis after the inhalations, and his perspiration smelt strongly of benzoic acid. Dr. Fritsche thinks that absorption was favored by the laryngeal ulcer. The number of cases, however, in which the benzoate did decided harm is certainly small compared with those in which its effects were negative. It is true that several, not only of Dr. Guttman's, but of Dr. Wenzel's, patients died during the treatment, but neither of them appears to consider that death was accelerated by the treatment. The cases were so advanced that recovery or improvement *under ordinary circumstances* was hopeless. Dr. Wenzel affirms that "neither in the severe or the slight cases under his care could the least effect on the phthisical process be detected in the way of mere alleviation of the symptoms, still less in that of arrest or objective improvement of the disease." Dr. Fritsche, in eighteen patients, obtained results similar to the foregoing, except that it appeared to him that the inhalation eased the cough and sometimes diminished the expectoration. Dr. Waldenburg, in twenty other patients, saw "no trace of improvement, subjective or objective," and Professor Senator's experience was the same; in fact, there seems no reason for carrying these experiments any farther. We have for this reason thought it our duty to put our readers as early as possible in possession of the results of the Berlin trials, lest any of them who have followed our previous articles on the subject should be wasting their own and their patients' time with inhalations of a useless drug.

One point in connection with the subject of inhalation deserves a word here. Several German authorities, and especially Professor Schnitzler, of Vienna, have raised the question again, whether the substances used for spray inhalations reach the lungs at all. Schnitzler thinks most of the spray condenses in the mouth, and that only under pe-

* Berliner Klin. Wochenschrift, No. 49, 1879.

† Ibid, Nos. 49, 50.

culiarly favorable circumstances does any of it pass the rima glottidis. Professor Waldenberg, however, whose authority is certainly of equal weight, considers that though the quantity which actually reaches the lungs is small, there can be no doubt that some does reach them. Professor Drasche, of Vienna (Wiener Med. Wochenschrift, Nos. 50, 51, 1879), has given what seems a certain experimental proof of this. Making some of his phthisical patients, who were well skilled in inhaling, inhale a sprayed solution of 4.0 grammes ferrocyanide of potassium in 40.0 grammes water for twelve minutes, he found, by testing the interior of the mouth and the sputa every quarter of an hour with weak perchloride of iron, that a time was reached when the iron no longer colored the mouth or pharynx blue, while the sputa were deeply tinged, owing to the reaction between it and the potassium salt which adhered to them. As in one case the blue tint of sputum occurred as late as eleven hours after the inhalation, it is difficult to see where it could have become impregnated with the ferrocyanide except in the lungs. Putting aside the well known fact of the penetration of dust into the lungs, it seems unreasonable to doubt that if any part of these organs is permeable to air, the air should not carry with it whatever it holds in suspension at the time.—*London Medical Times and Gazette.*

Benzoate of Sodium Inhalations.—Since our article, "The Story of a New Remedy," in a recent issue, was written, Dr. Schüler has published in the Berliner Klin. Wochenschrift (No. 45) a short statement of his views as to the daily dose of benzoate of sodium necessary to be inhaled in phthisis for benefit to be expected from it, and as to the best method of managing the inhalation. His experiments on animals led him to the conclusion that for every kilogramme of body-weight 0.5 to 1 gramme benzoate is required. Hence a man of 60 kilos. weight must inhale daily from 30 to 60 grammes (1 to 2 ounces) of it in a five per cent. aqueous solution. A Siegle's steam spray is the best, and the patient can have from two to four sittings of half an hour eaeh daily, according to his strength. The spray solution should be made only with *distilled* water. The patient is to take only moderately deep breaths at first, very gradually increasing his inspiratory force. General treatment is not to be neglected. The body-weight should be tried every five to ten days as a guide to progress. Dr. Schüler ends by warning against overstrained confidence in this treatment. "In the human subject," he says, "the state of things is seldom so simple as in the animals we experiment on. As a rule, in man, tuberculosis comes under treatment in association with diseased processes which interfere with the action of the remedy. On the other hand, for this reason, as well as from the results of my researches, we can only expect a certain and permanent cure provided the inhalation treatment can be steadily carried out, even in some cases for months." Dr. Schüler evidently, we should add, has no sympathy with the Innsbruck *fiasco*, and insists that this treatment "must undergo a very searching, lengthened, and often repeated testing" before a definite judgment can be passed on it. We are inclined to think that the quantity of benzoate required for daily use will seriously prejudice the method. A few weeks back the price in London was about 1s. 6d. an ounce, and the treatment would become rather expensive if two ounces had to be inhaled every day for months. This part of the matter has its ridiculous side. We know of two medical men lately, who, hearing of the benzoate inhalations, proceeded to furnish themselves, one with one ounce, and the other with an ounce and a half of the drug! They have since learnt that they must order it by the pound.—*London Medical Times and Gazette.*

The New Anæsthetic, Bromide of Ethyl.—Dr. R. J. Levis, of Philadelphia, has recently called the attention of the profession to the value of the bromide of ethyl as an anæsthetic. It was discovered by Serrullas in 1827. A few years ago some experiments were made with it on animals, but Dr. Lawrence Turnbull, of Philadelphia, was the first to experiment with it in this country on human beings. He gave it first in September, 1877. Since that time he has given it in twenty-five cases, varying from forty seconds up to one hour, and in quantities varying from two drachms to eight ounces. In April, 1879, Doctor Turnbull called the attention of Dr. Levis to the new anæsthetic, and he has used it extensively in both hospital and private practice.

Dr. Levis being, fortunately, surgeon to the Pennsylvania Hospital and to the Jefferson College Hospital, had a large field for experiment; and for his experience with it the readers are referred to his article on the subject. Dr. S. W. Gross, Dr. Drake, Dr. George F. Sowers and other surgeons in Philadelphia have used it, and all speak enthusiastically of it. From the influence and teachings of Dr. Levis it is being adopted as an anæsthetic by many in different parts of the country. It has not been used, so far as is learned, in any hospitals here yet, but Dr. J. Marion Sims has performed operations where the bromide of ethyl was used as an anæsthetic, varying in time from a few minutes up to an hour and a half. It is learned that he is to read a paper on the subject before the New York Academy of Medicine on the 19th of March. Whatever may be the purport of this paper and the discussion on it, will be before the readers of the next number of this journal. It has been often said that whoever would give to the profession an anæsthetic as pleasant to take as chloroform and safe in its effects as ether, would confer a great boon on surgery and a greater one on humanity.

A few weeks or months will, in all probability, determine whether the bromide of ethyl will fulfill these indications or not. — *Gaillard's Medical Journal.*

Garcinia Indica.—*Local name,* Kokum.—The tree is common on the western coast between Damann and Goa; it grows wild upon the hills of the Concan, but is often to be seen in gardens close to the sea. It flowers about Christmas, and ripens its fruit in April and May. The fruit is largely used all along the western coast as an acid ingredient in curries, and is an article of commerce in the dry state. It is generally prepared by removing the seeds and drying the pulp in the sun; the latter is then slightly salted, and

is ready for the market. In Goa the pulp is sometimes separated from the skin, and made into large globular or elongated masses. The seeds are pounded and boiled to extract the oil, which on cooling becomes gradually solid, and is roughly moulded by hand into egg-shaped balls, or concavo-convex cakes. This is the substance known as kokum butter; the natives occasionally use it for cooking, but the statement that it is largely used in Goa to adulterate ghee (liquid butter) is incorrect. The apothecaries of Goa prepare a very fine purple syrup from the fruit which is worthy of attention. The fruit is spherical, about the size of a small orange, purple, containing an acid pulp of a still deeper color, in which from five to eight reniform seeds are imbedded. The seeds are compressed laterally, wrinkled, about three-fourths of an inch long by four-tenths broad. The cotyledons are very thick, closely adherent, and have a sweet oily taste. Kokum butter is of a dirty white color, firm, dry, and friable in the hottest weather, and greasy to the touch, like spermaceti; its structure is crystalline. It generally contains impurities, and requires to be remelted and strained before it can be used for pharmaceutical purposes. Its chief fault is that it has a yellowish tinge, which makes ointment prepared with it inferior in appearance to that made with spermaceti.—*Phar. Jour. and Transactions.*

Hæmorrhage Plant (Aspilia latifolia, O. and H.)—This is an herbaceous plant belonging to the natural order compositæ, from one and a half to four feet high, with spreading branches and opposite very rough foliage. The leaves are ovate, acuminate, minutely serrate, and very hard to the touch, owing to the leaf being covered with very short, rigid hairs. The flowers are yellow and about the size of those of the fleabane (pulicaria dysenterica, Gaertn). The florets of the ray are neuter, a feature which readily distinguishes this genus from those African genera to which it is most nearly allied. From the other African species of the same genus, it is known by the pappus being almost obsolete, by the shape of the leaves, and by the scales of the involucre being equal in height to the florets of the disc. The account given by Dr. Roberts of the hæmostatic properties of this plant partake of the marvellous. He states (*in litt.*) that the natives always prefer to use it to any treatment adopted by the Europeans. He further says that he has witnessed its use in several cuts where the arteries have been severed, the leaves and flowers being pounded together and applied to the wound, the hæmorrhage stopping in a few minutes and the wound healing rapidly without any other application. The decoction, in doses of ʒ ss three times a day, is used in hæmorrhage from the lungs. Dr. Roberts is not sure, however, whether the dried plant would answer as well, as he had only seen the fresh plant used. The properties of this plant certainly are worth investigation, so that it may be determined whether its action is merely mechanical, like that of matico, or whether its juice, like that of jatropha curcas, L., possesses an inherent property of coagulating the fibrine of the blood.—*Phar. Jour. and Transactions.*

A New Anthelmintic.—The ocinum basilicum, a plant known in Buenos Ayres under the name "albochaca," has an action of such a nature that the worms in every stage of development rapidly leave their location after the juice reaches them. Its use is so much the more to be recommended since in the event no worms are present, no injurious effect results from the plant, but a laxative and disinfectant action is the only result. Fifty grammes of the juice are given, followed in two hours by a dose of castor oil. A free discharge of the worms may be expected.

The above observations of Dr. Lemos and the results obtained are very encouraging, and invite further investigation, the more since the number of anthelmintics is limited, and their action often unsatisfactory.—*Med. Neuigk.*, No. 34, 1879.

Chrysophanic Acid (Chrysarobin) in the Treatment of Syphilitic Eruptions. — Dr. A. Reumont recommends an ointment of ʒ ss to ʒ iss Chrysophanic acid to the ounce of vaseline, to be well rubbed into the palms and soles in stubborn palmar and plantar syphilis. If rest can be procured, the inunction should be repeated night and morning; otherwise only at night. Internal treatment should of course be kept up.—*Berlin. Clin. Woch.*, 1879, *p.* 322.

Tayuya.—Recent investigations add weight to the estimation of the value of this drug in scrofula and syphilis. Various writers cited in the Centralblatt für Chirurgie (No. 48, 1879) give notes of fifteen cases of syphilis and one of ulceration of the lip of uncertain origin cured by Tayuya within a month. Alpago-Novello gives the case of a girl 9 years of age, suffering with scrofulous ulcers and submaxillary lymphatic engorgement, lymphoma of the neck, etc., who was much improved under the use of the tincture. Of two other similar cases, one was almost or entirely cured, the other much improved.

Sassy Bark (Erythrophlæum Guineense, Don).—This tree, which is abundant in Liberia, is only used as a poison. Its medicinal properties have only recently been investigated by Dr. T. Lauder Brunton.* The plant has already been figured in this Journal and a full description of it given.†—*Phar. Jour. and Transactions.*

Transactions of Societies.

Wayne County Medical Society.

STATED MEETING.

Detroit, Oct. 16th, 1879.

Dr. Brodie presented a patient affected with chromidrasis, giving the subjoined report:

James Murphy arrived in this city on the 24th of September, 1879, direct from Wexford, Ireland. Age, 16; well grown, and in apparent good health.

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* Lancet, March 17, 1877, p. 377.

† Pharmaceutical Journal [1], vol. xvi, p. 235.

He was brought to my office on account of a green perspiration from the upper part of his body, more particularly the upper part of the chest anteriorly and as low down on the back as the base of the scapulæ. This perspiration was abundant, so as to wet not only the shirt but the sheet of the bed while sleeping, coloring them in some patches as though they were dyed. I could not learn much of the family history, except that he had a brother and sister die of consumption or scrofula, one 4 and the other 10 years old; also that the family physician objected to his emigrating on account of his health.

Physical examination detected neither functional nor organic disease, except in the apex of the right lung a slight dullness of the vascular murmur. His weight was 116 pounds. This green sweating had lasted ten days before I saw him, and was accompanied by rather a strong odor. The treatment consisted in bathing the chest with hot water medicated with chloride of sodium night and morning. This was continued for a week, when it entirely disappeared. Five months have elapsed with no return, and the lad is more than commonly healthy in appearance.

W. H. Rouse, M. D., Secretary.

Special Meeting, Detroit, Oct. 24th, 1879.

Dr. Louis Davenport, a member of this Society, having died on the 22d inst., the association convened in special session, and appointed Drs. Gustin, Lyster and Richards a committee to prepare suitable resolutions. The committee submitted the following, which was unanimously adopted:

Resolved. That in the death of Dr. Davenport this Society has lost one of its most gifted members, the community a physician who had ever their physical welfare at heart, and who conscientiously believed that it was his duty to give his time and talents ever to their interests; that this mournful event has deprived us of one whose long and intimate association and honorable and generous character has won our esteem and affection, and that while we mourn our loss, we will ever cherish his memory; that we offer the family our warmest sympathy in this their hour of bereavement, and would suggest as a consoling thought that their loss cannot but be his gain.

W. H. Rouse, Secretary.

Stated Meeting, Detroit, Nov. 5th, 1879.

Dr. J. E. Clarke read a paper on Vis Medicatrix Naturæ. [Dr. Clarke's paper will appear in April No. of Gazette.]

Dr. Leonard.—The encysted tape-worm, which we usually obtain in its second stage, is comparatively harmless to the hog so long as it is thus encysted. When the meat is eaten the cyst, or exudate, is dissolved in the stomach, and a tape-worm is developed. The surgeon can often accomplish in a few weeks as much as nature unaided would require many months. A man received a buck-shot in his right carotid artery. It became encysted, and remained there for one and a half years.

Dr. Gustin.—Nineteen out of twenty patients, under favorable circumstances, would get well without treatment. The homœopaths take advantage of this circumstance. He saw a man who had a bullet in him six years.

Dr. Smith.—Necrosis generally attacks the old. A girl had an ulcer of the lower maxilla. A loose piece of bone was removed. More rough bone was detected. Nature has removed considerable of this, and may yet do good service. A man had necrosis of the tibia, and several pieces of bone came out. His treatment was washing with cold water, and after a few years the limb got well. Thus nature does well in curing injuries of the extremities; can it do as well with diseases of the vital organs?

Dr. Clarke.—Most of the cases of necrosis he had seen were of the tibia, none of which got well without surgical assistance. Saw a girl with necrosis of the femur. When the parts were chiselled away the tissues showed much formative power.

Dr. Klein.—A man, six feet high, had necrosis of the tibia two years. Half a dozen sinuses appeared, and much matter was discharged. A piece of bone eleven inches in length was removed. Two weeks after the operation the man walked in the hospital and in time got well.

Dr. Brodie.—In modern times the powers of nature to cure diseases are not so carefully taught as formerly. He has great confidence in nature, but it generally requires assistance, otherwise the patient might die before the work was accomplished, as, for instance, in some cases of abscess. In such diseases as inflammation, the tendency is to recovery. It is very important to know when to give medicine and when to use the knife.

Dr. Clarke.—There is a heart of a deer at Ann Arbor in which a bullet is encysted.

Reports of cases and of prevailing diseases:

Dr. Gustin.—A woman struck her husband on the head with a shovel. At first but little trouble was apprehended. In a few weeks an abscess formed. The bones from the forehead to the occiput became bleached, and the parietals could be raised sufficiently to expose to view the brain. With all this injury there seemed to be very little disturbance of the system.

Dr. Clarke.—Saw a woman who had fallen in a fit. She was hanging out clothes during the seige of Charleston, when an exploding shell broke her parietal bone. Convulsions came on, but subsided when the bone was raised. She has been troubled with them at times since.

Dr. Gustin.—Saw Prof. Mott operate by trephining for convulsions. There was no positive guide to the exact location of the injury, but it proved to be in the centre of the bone removed. A happy hit.

Dr. Rouse.—Presented two powders put up by a druggist, neither of which corresponded with the prescriptions. The patient, after taking one kind —hydrarg. cum creta was ordered—became much depressed, and in a short time violent emesis ensued. The powder had very slight resemblance to the ordinary chalk mixture. The other powder was quinidia instead of quinine, as ordered. The chalk mixture was referred to Dr. Leonard for examination. It is not improbable much injury to both patient and physician may result from our present prescription system; for while the pharmaceutist, in the majority of cases, escapes without detection, the patient must suffer in his person and the physician in his reputation for these errors.

Dr. Richards and others reported measles of a rather mild type quite prevalent. There were a number of cases of sore throat.

W. H. Rouse, M. D., Secretary.